WESTERN MARYLAND RAILWAY.*

Durbin Branch.

Miles from Baltimore.	Stations.	State.	County.	Elevation Feet.
274.7	Elkins	W. Va.	Randolph	1933
279.4	Tunnel Station	W. Va.	Randolph	2326
.....	Tunnel No. 1 Summit	W. Va.	Randolph	2367
280.8	Lumber	W. Va.	Randolph	2298
282.3	Meadows	W. Va.	Randolph	2181
284.2	Faulkner	W. Va.	Randolph	2206
284.8	Bowden	W. Va.	Randolph	2212
289.2	Woodrow	W. Va.	Randolph	2353
290.5	Montes	W. Va.	Randolph	2426
293.5	Bemis	W. Va.	Randolph	2591
296.8	Morribell	W. Va.	Randolph	2838
.....	Tunnel No. 2 Summit	W. Va.	Randolph	2939
299.2	Glady	W. Va.	Randolph	2915
.....	Summit Cut	W. Va.	Pocahontas	3147
305.8	Wildell	W. Va.	Pocahontas	3060
.....	Gertrude	W. Va.	Pocahontas	3006
310.6	May	W. Va.	Pocahontas	2963
313.9	Burner	W. Va.	Pocahontas	2923
316.1	Braucher	W. Va.	Pocahontas	2882
321.8	Durbin	W. Va.	Pocahontas	2723

*Bulletin 2, W. Va. Geol. Sur., p. 40; 1911.

UNITED STATES GEOLOGICAL SURVEY LEVELS.

The various topographic quadrangles (Cass, Durbin, Hightown, Lobelia, Marlinton, Mingo, Spruce Knob, Warm Springs, and Webster Springs) which make up the area of Pocahontas County have been covered with a network of primary spirit-levels run by the United States Geological Survey.

The following descriptive remarks are quoted from Bulletin No. 632 of the United States Geological Survey, pages 5-7; 1916:

"**Classification.**—The elevations are classified as precise or primary, according to the methods employed in their determination. The former are determined by lines of levels run either in both forward and backward directions or by simultaneous double-rodded

APPENDIX.

LEVELS ABOVE MEAN TIDE AND GAZETTEER.

RAILROAD LEVELS.

CHESAPEAKE AND OHIO RAILWAY*.

Greenbrier Branch.

Miles from Ronceverte.	Stations.	State.	County.	Elevation Feet.
0.0	Ronceverte	W. Va.	Greenbrier	1670
2.8	Whitcomb	W. Va.	Greenbrier	1705
4.6	North Caldwell	W. Va.	Greenbrier	1696
13.8	Keister	W. Va.	Greenbrier	1774
16.9	Anthony	W. Va.	Greenbrier	1800
24.4	Spring Creek	W. Va.	Greenbrier	1862
27.6	Renick	W. Va.	Greenbrier	1877
34.8	Droop Mountain	W. Va.	Pocahontas	1943
41.3	Beard	W. Va.	Pocahontas	2015
48.6	Seebert	W. Va.	Pocahontas	2064
50.9	Watoga	W. Va.	Pocahontas	.....
55.0	Buckeye	W. Va.	Pocahontas	2112
58.9	Marlinton	W. Va.	Pocahontas	2131
65.1	Clawson	W. Va.	Pocahontas	.....
73.9	Clover Lick	W. Va.	Pocahontas	2295
79.7	Sitlington	W. Va.	Pocahontas	2370
83.5	Cass	W. Va.	Pocahontas	2455
90.9	Hosterman	W. Va.	Pocahontas	2592
94.8	Boyer	W. Va.	Pocahontas	.....
98.4	Durbin	W. Va.	Pocahontas	2724
100.9	Bartow	W. Va.	Pocahontas	2776
103.7	Winterburn	W. Va.	Pocahontas	2868

*Bulletin 2, W. Va. Geol. Sur., p. 54; 1911.

are determined with the Y level, precautions being taken against only the principal errors and the levels being run mostly in circuits of single lines. The allowable limit of error observed on the precise work already done by the Geological Survey in this State is represented in feet by 0.02 times the square root of D, and that for the primary work by 0.05 times the square root of D in which D is the length of the circuit in miles.

"**Bench Marks.**—The standard bench marks are of two forms. The first form is a circular bronze or aluminum tablet, 3½ inches in diameter and ¼ inch thick, having a 3-inch stem, which is cemented in a drill hole in solid rock in the wall of some public building, a bridge abutment, or other substantial masonry structure. The second form, used where masonry or rock is not available, consists of a hollow wrought-iron post 3½ inches in outer diameter and 4 feet in length. The bottom is spread out to a width of 10 inches in order to give a firm bearing on the earth. A bronze or aluminum cap is riveted upon the top of the post which is set about 3 feet in the ground. A third style of bench mark, with abbreviated lettering, is used for unimportant points. This consists of a special copper nail 1½ inches in length driven through a copper washer ⅞ inch in diameter. The tablets as well as the caps on the iron posts are appropriately lettered, and cooperation by States is indicated by the addition of the State name.

"The numbers stamped on the bench marks described in the following pages represent the elevations to the nearest foot as determined by the levelman. These numbers are stamped with $\frac{3}{16}$-inch steel dies on the tablets or post caps, to the left of the word 'Feet'. The office adjustment of the notes and the reduction to mean sea-level datum may so change some of the figures that the original markings are 1 to 2 feet in error. It is assumed that engineers and others who have occasion to use the bench-mark elevations will apply to the Director of the United States Geological Survey, at Washington, D. C., for the adjusted values, and will use the markings as identification numbers only.

"**Datum.**—All elevations determined by the United States Geological Survey and United States Coast and Geodetic Survey are referred to mean sea-level, which is the level that the sea would assume if the influence of winds and tides were eliminated. This level is not the elevation determined from the mean of the highest and the lowest tides, nor is it the half sum of the mean of all the high tides and the mean of all the low tides, which is called the half-tide level. **Mean sea-level is the average height of the water, all stages of the tide being considered.** It is determined from observations made by means of tidal gages placed at stations where local conditions, such as long narrow bays, rivers, and like features, will not affect the height of the water. To obtain even approximately correct results these observations must extend over at least one lunar month, and if accuracy is desired they must extend over several years. At ocean stations the half-tide level and the mean sea-level usually differ but little. It is assumed that there is no difference between the mean sea-levels determined from observations in the Atlantic Ocean, the Gulf of Mexico, and the Pacific Ocean.

"The connection with tidal stations for bench marks in certain areas that lie at some distance from the seacoast is still uncertain, and this fact is indicated by the addition of a letter or word to the right of the word 'Datum' on tablets and posts. For such areas corrections for published results will be made from time to time as the precise-level lines of the United States Geological Survey, the United States Coast and Geodetic Survey, or other Government organizations are extended."

The primary levels by the United States Geological Survey, run in cooperation with the West Virginia Geological Survey, taken in part from Bulletin No. 632 of the United States Geological Survey, but mainly from unpublished data supplied by the Director of the latter Survey, are given below. The levels are given by topographic quadrangles and cover the area of Pocahontas included in the various sheets as also a portion of the adjoining counties shown thereon. Mileages mentioned in the descriptions of bench marks are road mileages and are not air-line distances from the towns and post-offices mentioned to the points where the levels were taken:

CASS QUADRANGLE: POCAHONTAS COUNTY.

(Latitude 38° 15'-38° 30'; Longitude 79° 45'-80° 00').

Primary leveling by E. E. Harris in 1921:

From Durbin Quadrangle southwest along Chesapeake and Ohio Railroad, across quadrangle into Mingo Quadrangle near its southeast corner.

	Feet.
Boyer Station (Nottingham P. O.), 1.31 miles southwest of, 10 feet east of track, on top of 15-inch drain pipe; chiseled square, rock marked "U. S. B. M. 2,635.5"..	2,635.68
Boyer Station (Nottingham P. O.), 2.07 miles southwest of, 1.99 miles northeast of **Hosterman**, 50 feet south of mile-post W 90, 20 feet west of track, in top of boulder; bronze tablet stamped "W. Va. 1921 H 149 2622", fence marked "U. S. B. M. 2,622".....	2,622.255
Reference mark, 18 feet south 15° west of tablet, on top of boulder; chiseled square.....	2,622.40
Hosterman, 0.98 mile northwest of, 40 feet north of mile-post W 89, 10 feet west of track, on top face of ledge of rock; chiseled square, rock marked "U. S. B. M. 2,605.8".....	2,606.01
Hosterman, 290 feet north of station, in west end of south bridge seat of railroad trestle No. 881; chiseled square, bridge rail marked "U. S. B. M. 2,582.1"...	2,582.32
Hosterman, in front of station-sign, end of tie marked "U. S. 2,584.3", top of near rail.....	2,584.50
Hosterman, 0.91 mile southwest of, 900 feet north of mile-post W 87, 0.32 mile north of **Nida**, 10 feet west of track, top of pointed boulder; chiseled square, boulder marked "U. S. B. M. 2,570.3".....	2,570.55

	Feet.
Nida, in front of station-sign, end of tie marked "U. S. B. M. 2,564.5"; top of near rail	2,564.7
Nida, 0.47 mile southwest of, 50 feet south of railroad trestle No. 864 over Trout Run, 15 feet west of track, in top of large sandstone boulder; bronze tablet stamped "2557 W. Va. 1921 H 150", boulder marked "U. S. B. M. 2,557"	2,557.177
Reference mark, 44.6 feet north of tablet, in east end of south bridge seat of railroad trestle No. 864 over Trout Run; chiseled square	2,555.10
Nida, 1.57 miles southwest of, 1,800 feet north of mile-post W 85, 10 feet west of track, on south end of large boulder; chiseled square, boulder marked "U. S. B. M. 2,529.1"	2,529.32
Nida, 2.37 miles southwest of, 0.22 mile northeast of **Wanless Station,** 550 feet north of farm road crossing, 10 feet north of track, on top of boulder; chiseled square, boulder marked "U. S. B. M. 2,510.8"	2,510.96
Wanless Station, in front of station-sign, end of tie marked "U. S. 2,508.4", top of near rail	2,508.6
Wanless Station, 1.07 miles southwest of, 2.70 miles northeast of **Cass,** 10 feet north of track, at east end of tangent, in top of sandstone boulder; bronze tablet stamped "W. Va. 1921 H 151", telegraph-pole marked "U. S. B. M. 2,485.1" (not found in 1924)	2,485.316
Reference mark, 29.2 feet west of tablet, on top of boulder; chiseled square	2,488.00
Cass, 1.81 miles northeast of, 1,870 feet north of mile-post W 82, at north end of west bridge seat of railroad trestle No. 825; chiseled square, guard-rail of bridge, marked "U. S. B. M. 2,467.4"	2,467.59
Cass, 0.70 mile northeast of, 70 feet south of target-switch, 20 feet east of track, on top of boulder; chiseled square, boulder marked "U. S. B. M. 2,453.1"	2,453.24
Cass, in front of station, east face of station platform; marked "U. S. 2,441.23"; top of rail of main-line track	2,441.5
Cass, west of station, in northeast corner of large concrete foundation, in front of post-office and store of the Pocahontas Supply Company; bronze tablet stamped "2452 W. Va. 1921 H 152"	2,452.164
Reference mark, 45.6 feet south 25° west of tablet, in south end of lower stone step at entrance to Pocahontas Supply Company; chiseled square	2,452.68

	Feet.
Cass, 0.98 mile southwest of, 600 feet northeast of **Deer Creek**, 40 feet west of track, northeast of right-angle turn in dirt road, in east root of large stump; copper nail and washer, telegraph-pole marked "U. S. B. M. 2,415.9"	2,416.14
Deer Creek, in front of station-sign; top of near rail, end of tie marked "2,417"	2,417.2
Deer Creek, 0.87 mile south of, 0.30 mile northeast of **Raywood**, 10 feet west of track, on top face of long ledge of rock; chiseled square, rock marked "U. S. B. M. 2,399.3"	2,399.49
Raywood, in front of station, end of tie marked "U. S. 2,392.1"; top of rail	2,392.3
Raywood, 0.65 mile southwest of, 0.95 mile northwest of **Sitlington**, 10 feet west of track, on top of 18-inch drain pipe; chiseled square, telegraph-pole marked "U. S. B. M. 2,379.6"	2,379.83
Sitlington, in front of station, end of tie marked "U. S. 2,363.4"; top of rail	2,363.6
Sitlington, 25 feet south of track, in concrete wall around station, east side of; bronze tablet stamped "W. Va. 1921 H 153 2363", boulder marked "U. S. B. M. 2,363.3"	2,363.477
Reference mark, 101.5 feet north 65° east of tablet, in right-angle turn in concrete wall to station platform; chiseled square	2,363.85
Sitlington, 0.97 mile northwest of, 800 feet south of mile-post W 75, 10 feet north of track, on top face of ledge of rock; chiseled square, rock marked "U. S. B. M. 2,344"	2,344.22
Sitlington, 1.79 miles west of, 0.65 mile southeast of **Stony Bottom**, 90 feet north of mile-post W 75, 10 feet west of track, on top face of ledge of rock; chiseled square, rock marked "U. S. B. M. 2,334.4"	2,334.56
Stony Bottom, in front of station-sign, end of tie marked "U. S. 2,328.8"; top of rail	2,329.0
Stony Bottom, 430 feet southwest of station, 30 feet west of track, on north bank of Elklick Run, set in top of large boulder; bronze tablet stamped "2329 W. Va. 1921 H 154", telegraph-pole marked "U. S. B. M. 2,328.7"	2,328.922
Reference mark, 40.5 feet south 25° east of tablet, in east end of north bridge seat of railroad trestle over run; chiseled square	2,326.92
Stony Bottom, 0.94 mile southeast of, 2,250 feet north	

	Feet.
mile-post W 73, 10 feet west of track, 30 feet south of farm road crossing track, to river, on top of outcrop of rock; chiseled square, rock marked "U. S. B. M. 2,316.6"	2,316.84
Stony Bottom, 2.02 miles southeast of, 1,930 feet north of mile-post W 72, 30 feet north of track, 20 feet east of fence line, on top of large boulder; chiseled square, boulder marked "U. S. B. M. 2,296.9"	2,297.11
Stony Bottom, 2.61 miles south of, 0.60 mile north of **Clover Lick,** 10 feet west of track, on rock ledge; chiseled square, rock marked "U. S. B. M. 2,295"	2,295.23
Clover Lick, in front of station, end of tie marked "U. S. 2,291.6"; top of near rail	2,291.8
Clover Lick, 630 feet south of, 10 feet west of track, 220 feet north of mile-post W 71, on top face of ledge of rock; bronze tablet stamped "2289 W. Va. 1921 H 155", rock marked "U. S. B. M. 2,289"	2,289.238
Reference mark, 75.7 feet north 20° west of tablet, on ledge of rock; chiseled square	2,289.81
Clover Lick, 1.10 miles southeast of, 460 feet north of mile-post W 70, 10 feet west of track, on top of 12-inch drain pipe; chiseled square, telegraph-pole marked "U. S. B. M. 2,278.1"	2,278.36
Clover Lick, 2.20 miles southwest of, 60 feet south of mile-post W 69, 10 feet west of track, on top face of ledge of rock; chiseled square, rock marked "U. S. B. M. 2,271.4"	2,271.69
Clover Lick, 3.20 miles southwest of, 1.27 miles northwest of **Big Run,** 70 feet north of mile-post W 68, 10 feet west of track, in top face of ledge of rock; bronze tablet stamped "W. Va. 2,259 B. M."	2,259.238
Reference mark, 38.8 feet south 15° west of tablet, on top face of ledge of rock; chiseled square	2,259.48
Big Run, 0.14 mile northeast of, 15 feet north of mile-post W 67, 200 feet south of railroad trestle No. 670, 10 feet east of track, on top of boulder; chiseled square, boulder marked "U. S. B. M. 2,248.3"	2,248.58
Big Run, 0.76 mile southwest of, 20 feet south of mile-post W 66, east side of track, in top of rack for extra rail; copper nail and washer, telegraph-pole marked "U. S. B. M. 2,237.4"	2,237.64

From Durbin Quadrangle south along W. Va. Pulp & Paper Co. Railroad to Cass.

Spruce Post-Office, 350 feet south of, 40 feet east of track, in top of large flat boulder; bronze tablet stamped	

	Feet.
"3853 W. Va. 1921 H 144", boulder marked "U. S. B. M. 3,852.5"	3,852.578
Reference mark, 30.6 feet north of tablet, on top of pointed boulder; chiseled square	3,853.19
Spruce Post-Office, 0.97 mile south of, 10 feet east of track, on top of ledge of rock; chiseled square, rock marked "U. S. B. M. 3,920"	3,920.01
Spruce Post-Office, 1.25 miles south of, in gap of mountain, top of east rail at switch, marked "3,937.7"	3,937.67
Spruce Post-Office, 1.55 miles southeast of, 450 feet south of mile-post C 7, west side of track, on top of boulder; chiseled square, boulder marked "U. S. B. M. 3,867.8"	3,867.81
Spruce Post-Office, 2.53 miles south of, 5.43 miles northwest of **Cass,** 350 feet south of mile-post C 6, 10 feet west of track, in top of large boulder; bronze tablet stamped "3609 W. Va. 1921 H 145", boulder marked "U. S. B. M. 3,608.8"	3,609.063
Reference mark, 71.3 feet south 10° east of tablet, on top of boulder; chiseled square	3,604.87
Cass, 4.52 miles northwest of, 30 feet north of mile-post C 5, 10 feet west of track, boulder marked "U. S. B. M. 3,379.9"	3,380.33
Cass, 3.52 miles northwest of, 10 feet east of mile-post C 4, near east end of switchback, 10 feet south of track on top face of ledge of rock; chiseled square, rock marked "U. S. B. M. 3,158.9"	3,159.55
Cass, 2.88 miles northwest of, 40 feet east of mile-post C 3, 50 feet south of track, just west of leaning locust tree, in top of large sandstone boulder; bronze tablet stamped "2977 W. Va. 1921 H 146", boulder marked "U. S. B. M. 2,976.8"	2,977.594
Reference mark, 59.6 feet north 40° east of tablet, on top of boulder; chiseled square	2,977.81
Cass, 1.76 miles northwest of, at crossing of railroad and dirt road, 10 feet east by 10 feet north of, on top of large boulder; chiseled square, telephone-pole, marked "U. S. B. M. 2,698.3"	2,699.31
Cass, 0.99 mile northwest of, at crossing of railroad and county road, 50 feet north by 10 feet east of, in southeast corner of bridge over Leatherbark Run; copper nail and washer, bridge rail marked "U. S. B. M. 2,524.4"	2,525.63

From Hightown Quadrangle southwest along highways through southeast part of quadrangle into Warm Springs Quadrangle.

	Feet.
Top of Allegheny, 2.92 miles southwest of, on east side of road, 100 feet south of spring, in angle of road, in east root of 10-inch oak tree; copper nail and washer, tree marked "U. S. B. M. 3,832.6"	3,832.51
Top of Allegheny, 3.68 miles southwest of, 1.52 miles northeast of **Oak Hill School,** at sharp turn in road, 35 feet west of and 15 feet north of lane, set in top of concrete post; bronze tablet stamped "3498 W. Va. 1921 H 131", gate-post marked "U. S. B. M. 3,497.9"	3,497.857
Reference mark, 49.8 feet south 20° east of tablet, in south root of 12-inch chestnut oak tree; copper nail and washer	3,502.68
Oak Hill School, 0.77 mile east of, on east edge of road, 10 feet east of fence line, 200 feet north of right-angle turn in road, across road from house, in west root of 24-inch chestnut tree; copper nail and washer, gate-post marked "U. S. B. M. 3,245.83"	3,245.83
Oak Hill School, across road from, 80 feet north of, in east root of large stump; copper nail and washer, tree marked "U. S. B. M. 3,009.9"	3,009.99
Oak Hill School, 0.84 mile west of, in southeast corner of ⊤-road east, 30 feet south by 20 feet east of, set in top of concrete post; bronze tablet stamped "2723 W. Va. 1921 H 132", telephone-pole marked "U. S. B. M. 2,722.7"	2,722.881
Reference mark, 31.9 feet south 80° west of tablet, in top of stump; copper nail and washer	2,721.83
Oak Hill School, 1.46 miles southwest of, at crossing of log railroad and county road, at forks of road, on east edge of, in west root of 15-inch poplar tree; copper nail and washer, tree marked "U. S. B. M. 2,734"	2,734.26
Oak Hill School, 2.22 miles southwest of, at forks of road, 40 feet south of, 280 feet west of J. B. Orndorff's mill, in west root of an apple tree; copper nail and washer, fence marked "U. S. B. M. 2,764"	2,764.26
Oak Hill School, 3.40 miles southwest of, at forks of ⊤-road west to **Green Bank,** 35 feet north by 35 feet west of, set in top of concrete post; bronze tablet stamped "2716 W. Va. 1921 H 161", fence-post marked "U. S. B. M. 2,715.4"	2,715.716
Reference mark, 74.6 feet south 20° east of tablet, in north root of 15-inch pine tree; copper nail and washer	2,717.80
Oak Hill School, 4.32 miles southwest of, 50 feet west of north-and-south road, 40 feet south of ⊤-road west, 0.2 mile east of **Oak Grove School,** in north root of	

	Feet.
22-inch maple tree; copper nail and washer, fence-post marked "U. S. B. M. 2,702"	2,702.27
Oak Hill School, 5.11 miles southwest of, 1.29 miles north of **Wesley Chapel**, on east edge of road, 150 feet south of run crossing road, across road from house, in west root of 12-inch pine tree; copper nail and washer, tree marked "U. S. B. M. 2,744.4"	2,744.34
Wesley Chapel, 0.52 mile north of, on east edge of road, 50 north of small wooden bridge over Thorny Branch, in north root of large oak stump; copper nail and washer, gate-post marked "U. S. B. M. 2,744.6"	2,744.41
Wesley Chapel, in northeast corner of road forks, in west end of lower stone step, at entrance to church; bronze tablet stamped "2762 W. Va. 1921 H 162", fence-post marked "U. S. B. M. 2,762.3"	2,762.623
Reference mark, 72.6 feet south 20° west of tablet, on top of small boulder; chiseled square	2,758.24
Wesley Chapel, 1 mile southwest of, 40 feet west of road center, in field, 80 feet south of mail-box, in east root of 18-inch tree; copper nail and washer, tree marked "U. S. B. M. 2,692.7"	2,693.04
Wesley Chapel, 1.85 miles southwest of, 1.1 miles northeast of **Pine Hill School***, on east edge of road, 50 feet south of road forks, in north root of 6-inch pine tree; copper nail and washer, tree marked "U. S. B. M. 2,689.4"	2,689.76
Pine Hill School*, 100 feet south of, 50 feet east of road, just north of right-angle turn in road to west, in west root of 18-inch pine tree; copper nail and washer, tree marked "U. S. B. M. 2,528.4"	2,528.62
Pine Hill School*, 0.84 mile northwest of, 1 mile southeast of **Dunmore**, 6.80 miles north of **Frost**, in center of large grass triangle formed by forks of road, set in top of concrete post; bronze tablet stamped "W. Va. 1921 H 163", sign-post marked "U. S. B. M. 2,509" (in 1924, B. M. covered by hard-surfaced new road)	2,509.340
Reference mark, 26.1 feet south 20° west of tablet, in north root of 15-inch oak tree; copper nail and washer	2,512.66
Frost, 5.70 miles north of, on west edge of road, 540 feet north of forks of lane east, on top of large flat boulder; chiseled square, boulder marked "U. S. B. M. 2,526"	2,526.31

*Pine Hill School, now abandoned, was located at mouth of Shock Run, and has now been moved 0.5 mile north and renamed Hillside School.

	Feet.
Frost, 4.78 miles north of, on north edge of road, 140 feet west of **Mt. Hope Church,** in east root of 12-inch oak tree; copper nail and washer, tree marked "U. S. B. M. 2,629.1"	2,629.46
Frost, 4.02 miles north of, 0.76 mile south of **Mt. Hope Church,** on east edge of road, 80 feet south of right-angle turn in road to west, in top of large sandstone boulder; bronze tablet stamped "2655 W. Va. 1921 H 164", telephone-pole marked "U. S. B. M. 2,654.6"	2,654.965
Reference mark, 82.6 feet north 5° east of tablet, in east root of 30-inch oak tree; copper nail and washer	2,656.18
Frost, 2.88 miles north of, on east edge of road, in east root of 38-inch oak tree; copper nail and washer, tree marked "U. S. B. M. 2,700.3"	2,700.69
Frost, 1.95 miles north of, at crossing of county road and log railroad, 15 feet east by 30 feet north of, in west root of large stump; copper nail and washer, stump marked "U. S. B. M. 2,657.4"	2,657.71
Frost, 1.11 miles north of, on east edge of road, 70 feet north of Sugarcamp Run, in west root of 40-inch sugar tree; copper nail and washer, tree marked "U. S. B. M. 2,598.9"	2,599.19
Frost, 0.50 mile north of, at forks of road west, 30 feet north by 30 feet west of, set in top of large boulder set in place; bronze tablet stamped "W. Va. 1921 H 165", fence marked "U. S. B. M. 2,566.8" (in 1924, B. M. covered by new road)	2,567.103
Reference mark, 246 feet south 40° west of tablet, in north root of 24-inch oak tree; copper nail and washer	2,574.24
Frost, 350 feet east of post-office, on north edge of road, in west root of 15-inch maple tree; copper nail and washer, telephone-pole marked "U. S. B. M. 2,588.3"	2,588.665
Frost, 0.76 mile southwest of, at big turn in road, 60 feet north of and on east edge of lane north, in south root of 24-inch oak tree; copper nail and washer, tree marked "U. S. B. M. 2,541.2"	2,541.65
Frost, 1.57 miles southwest of, at concrete bridge over Knapp Creek, at base of west parapet wall to; chiseled square, wall of bridge marked "U. S. B. M. 2,498.6"	2,499.04
Frost, 2.34 miles southwest of, 40 feet east of road center, in southwest corner of yard to residence, set in top of large boulder, in place; bronze tablet stamped "W. Va. 1921 H 166", post marked "U. S. B. M. 2,496.7" (in 1924, B. M. covered by new road)	2,497.087

	Feet.
Reference mark, 95 feet north 40° east of tablet, in south root of 22-inch oak tree; copper nail and washer...	2,493.26

From Frost east along highways to Virginia-West Virginia line. (Double spur line).

Frost, 350 feet east of post-office, on north side of road, in west root of 15-inch maple tree; copper nail and washer.....	2,588.71
Frost Post-Office, 1.10 miles east of, on south bank of road, on east side of small run, in north root of 15-inch pine tree; copper nail and washer, tree marked "U. S. B. M. 2,671".....	2,671.38
Frost Post-Office, 2.08 miles northeast of, 30 feet south of road center, 20 feet east of an old log road south, in east root of a large oak tree; copper nail and washer, stump marked "U. S. B. M. 2,726.5".....	2,726.89
Frost Post-Office, 2.96 miles northeast of, on north edge of road, 550 feet east of large barn, just east of orchard, in top of sandstone boulder; bronze tablet stamped "W. Va. 1921 H 166", fence marked "U. S. B. M. 2,798.8" (B. M. destroyed in 1924; tablet found in top of fence-post).....	2,799.172
Reference mark, 86.5 feet east of tablet, on top of large flat boulder; chiseled square.....	2,800.79
Frost Post-Office, 3.91 miles northeast of, 900 feet east of shanty, 50 feet north of road center, in south root of 24-inch oak tree; copper nail and washer, tree marked "U. S. B. M. 2,912.7".....	2,913.08
Frost Post-Office, 4.90 miles northeast of, on east edge of road, 100 feet north of gap and West Virginia-Virginia State line, in west root of 24-inch oak tree; copper nail and washer, tree marked "U. S. B. M. 3,157.7"	3,158.08

Near Boyer Station (on Durbin Quadrangle).

Boyer Station, in front of; top of rail, end of tie marked "U. S. 2,661.5".....	2,661.7
Boyer Station, 0.58 mile southwest of, 10 feet east of track, on top of 15-inch drain pipe; chiseled square, rock marked "U. S. B. M. 2,653.2".....	2,653.43

From Mingo Quadrangle southeast to Clover Lick.

Primary leveling by P. E. Davenport in 1922:

Clover Lick, 2.24 miles northwest of, 250 feet east of Clover-lick Creek, in 30-inch oak tree root, on west side of road; copper nail and washer, stump painted (erroneously) "U. S. B. M. 2,385.8".....	2,364.97

	Feet.
Clover Lick, 1.29 miles northwest of, in center of ⊤-road, on sandstone rock; chiseled square, rock painted "U. S. B. M. 2,348.7"	2,347.83
At ⅄-road, painted "2,361"	2,359.9
Clover Lick, at, B. M. stamped W. Va. 1921 H 155" (destroyed, in 1924)	2,289.238

DURBIN QUADRANGLE: POCAHONTAS AND RANDOLPH COUNTIES.

(Latitude 38° 30′-38° 45′; Longitude 79° 45′-80° 00′).

Primary leveling by E. E. Harris in 1921:

From Beulah, Elkins Quadrangle, south-southwest along Western Maryland Railroad to Durbin, thence along highways east to Bartow, thence northeast into Spruce Knob Quadrangle.

Beulah, 0.89 mile southwest of, 2.39 miles northeast of **Wildell**, west side of track, 250 feet south of mile-post C 142/D 18, on top of outcrop of rock; chiseled square, telegraph-pole marked "U. S. 3,114.4 B. M."	3,114.74
Wildell, 1.19 miles northeast of, west side of track, center of big cut, on ledge of rock, at base of cliff; chiseled square, rock cliff marked "U. S. 3,108.8 B. M."	3,109.08
Wildell, in front of station-sign; top of near rail, "3,056.4" marked on tie	3,056.7
Wildell, 4 feet east of station-sign, in top of concrete post; bronze tablet stamped "3056 W. Va. 1921 H 116", sign-post marked "U. S. 3,055.6 B. M."	3,055.871
Witness bench mark, 68.7 feet south 60° west of tablet, in top of square-shaped post, at southeast corner of station platform; copper nail and washer	3,056.24
Wildell, 1.03 miles southwest of, east side of track, in west root of large stump; copper nail and washer, telegraph-pole marked "U. S. 3,029.8" B. M	3,030.05
Wildell, 2.06 miles southwest of, 2,760 feet northeast of mile-post C 147/D 13, west side of track, on ledge of rock; chiseled square, rock marked "U. S. 3,021.7 B. M."	3,021.96
Wildell, 2.97 miles southwest of, 2.18 miles northeast of **May**, 20 feet west of track, in center of small shelf, at base of rock cliff; bronze tablet stamped "3011 W. Va. 1921 H 117", rock cliff marked "U. S. 3,011.2 B. M."	3,011.443
Witness bench mark, 53 feet south 20° west of tablet, on top of boulder; chiseled square	3,008.92

	Feet.
May, 1.21 miles northeast of, 20 feet north of track, at west end of big cut, on top of pointed boulder; chiseled square, boulder marked "U. S. 2,983 B. M."	2,983.28
May, 0.49 mile north of, 650 feet south of mile-post C 149/D 11, east side of track, in top face of stone coping of northeast corner of concrete abutment to railroad trestle; chiseled square, guard-rail marked "U. S. 2,965.4 B. M."	2,965.67
May, in front of station-sign, "2,959.6" marked on tie; top of near rail	2,959.9
May, 0.42 mile south of, 240 feet north of mile-post C 150/D 10, west of track, on top of ledge of rock, at base of cliff; chiseled square, rock cliff marked "U. S. 2,953.7 B. M."	2,954.00
May, 0.72 mile south of, west side of track, in top face of ledge of rock at base of cliff; bronze tablet stamped "2953 W. Va. 1921 H 118", rock marked "U. S. 2,952.1 B. M."	2,952.881
Witness bench mark, 42.2 feet north 30° west of tablet, on rock ledge; chiseled square	2,952.34
May, 1.78 miles south of, 0.38 mile south of mile-post C 151/D 9, east side of track, inside of curve in track, on top face of rock ledge; chiseled square, rock marked "U. S. 2,945.9 B. M."	2,946.20
May, 2.73 miles south of, 0.34 mile south of mile-post C 152/D 8, west side of track, in south root of large cedar stump; copper nail and washer, stump marked "U. S. 2,927.7 B. M."	2,927.99
May, 3.2 miles south of, 1,000 feet north of mile-post C 153/D 7, in west end of south stone abutment to railroad trestle over Little River of West Fork of Greenbrier River; chiseled square, abutment marked "U. S. 2,916.7 B. M."	2,916.98
May, 3.86 miles south of, 4.61 miles north of **Olive**, 0.46 mile south of mile-post C 153/D 7 (west) east side track, in top of large flat boulder; bronze tablet stamped "2902 W. Va. 1921 H 119", boulder marked "U. S. 2,902.2 B. M."	2,902.432
Witness bench mark, 39.8 feet north 45° west of tablet, on top of small boulder; chiseled square	2,901.80
Olive, 3.10 miles north of, west side of track, in north end of west abutment of stone culvert; chiseled square, culvert marked "U. S. 2,874.6 B. M."	2,874.90
Olive, 2.28 miles north of, west side of track, at north end of cut, on top of flat rock; chiseled square, rock marked "U. S. 2,864.8 B. M."	2,865.09

	Feet.
Olive, 1.89 miles north of, east side of track, on top face of large ledge of rock; chiseled square, telegraph-pole marked "U. S. 2,844.4 B. M."	2,844.68
Olive, 1.31 miles northeast of, 1,200 feet north of mile-post C 157/D 3, east side of track, in top of large sheet of rock; bronze tablet stamped "2824 W. Va. 1921 H 120", rock marked "U. S. 2,823.6 B. M."	2,823.818
Witness bench mark, 43 feet south 75° west of tablet, on top of boulder; chiseled square	2,823.53
Olive, 0.48 mile northeast of, west side of track, in top of large stump; copper nail and washer, telegraph-pole marked "U. S. 2,797 B. M."	2,797.24
Olive Station, in front of station-sign; top of near rail, end of tie marked "2,787"	2,787.2
Olive, 280 feet east of station, on stone coping of south end of abutment to railroad trestle over Mountain Lick Creek; chiseled square, stone marked "U. S. 2,784.9 B. M."	2,785.14
Olive, 0.97 mile southwest of, 1.33 miles northeast of **Durbin**, west side of track, inside of long curve, on top of outcrop of rock; chiseled square, rock marked "U. S. 2,760 B. M."	2,760.26
Durbin, 0.63 mile west of, known as **West Durbin**, on west edge of road, just south of railroad crossing, in top of large stone, in retaining wall to approach to bridge over Greenbrier River; chiseled square, marked "2,731.3"	2,731.57
Durbin, 0.63 mile west of, known as **West Durbin**, in top of west end of north abutment to highway bridge over West Fork of Greenbrier River; chiseled square, guard-rail marked "U. S. 2,732.1 B. M."	2,732.32
Durbin, in center of large stone on east side of entrance to Durbin Bank; bronze tablet stamped "2730 W. Va. 1921 H 121"	2,730.480
Witness bench mark, 83.5 feet east of tablet, on stone curbing; chiseled square	2,730.13
Durbin, 0.94 mile east of, on west edge of road to Pocahontas Tanning Company, between rails, in east end of sill at cattle-guard; copper nail and washer, telegraph-pole marked "U. S. 2,736.1 B. M."	2,736.32
Durbin, 1.65 miles east of, 0.76 mile west of **Bartow**, 60 feet east of mile-post W 97, at cattle-guard, in east end of sill between rails; copper nail and washer, telegraph-pole marked "U. S. 2,751.2 B. M."	2,751.48

	Feet.
Bartow, 800 feet west of station, at crossing of railroad and county road, 125 feet north by 120 feet east of road, in top of outcrop of rock, on side of hill; bronze tablet stamped "2872 W. Va. 1921 H 122"	2,782.361
Witness bench mark, 19.3 feet north 80° west of tablet, on top of outcrop of rock; chiseled square	2,783.01
Bartow, in front of station; top of near rail, end of tie marked "U. S. 2,774 B. M."	2,774.1
Bartow, 0.72 mile northeast of, 20 feet west of cattle-guard, north side of track, on top of 15-inch corrugated drain pipe; chiseled square, cattle-guard marked "U. S. 2,795.6 B. M."	2,795.86
Bartow, 1.28 miles northeast of, 1.51 miles southwest of **Winterburn Station (Thornwood P. O.),** 70 feet south of railroad, west edge of county road, in west end of north abutment of bridge over East Fork of Greenbrier River; chiseled square, bridge rail marked "U. S. 2,810 B. M."	2,810.55
From Bartow southeast along highways into Spruce Knob Quadrangle near its southwest corner.	
Bartow, 0.71 mile southeast of, on south edge of road, 100 feet east of highway bridge over East Fork of Greenbrier River, 100 feet west of crossroads, in west root of 20-inch maple tree; copper nail and washer, fence-post marked "U. S. 2,782.8 B. M."	2,783.09
Bartow, 1.40 miles southeast of, on west edge of sharp turn in road, on north edge of lane through gate, in center of large stump; copper nail and washer, telephone-pole marked "U. S. 2,973.8 B. M."	2,973.93
Bartow, 2.26 miles southeast of, on south edge of road on west edge of lane along top of spur, in east root of 40-inch elm tree; copper nail and washer, tree marked "U. S. 3,261.4 B. M."	3,261.43
(The 5 following levels are on Spruce Knob Quadrangle):	
Bartow, 3.08 miles southwest of, on north edge of road, on top of ledge of rock; chiseled square, telephone-pole marked "U. S. 3,523.7 B. M."	3,523.66
Bartow, 3.95 miles southeast of, 40 feet west of road center, in saddle of road, set in top of concrete post; bronze tablet stamped "3625 W. Va. 1921 H 128", telephone-pole marked "U. S. 3,624.7 B. M."	3,624.617
Witness bench mark, 40.2 feet south of tablet, in west root of 12-inch oak tree; copper nail and washer	3,624.59
Bartow, 4.81 miles southwest of, on west edge of road, at foot of hill, across road from house, in west root of 20-	

	Feet.
inch sugar tree; copper nail and washer, telephone-pole marked "U. S. 3,696.5 B. M."	3,696.41
Bartow, 5.4 miles southeast of, in sharp turn in road, 30 feet north of lane, in east root of 12-inch oak tree; copper nail and washer, mail-box post marked "U. S. 3,906.8 B. M."	3,906.67

From Durbin south along Western Maryland Railroad into Cass Quadrangle.

Durbin, in center of large stone at southeast corner of building; bronze tablet stamped "2730 W. Va. 1921 H 121"	2,730.480
Durbin, 0.50 mile southwest of, at new Chesapeake and Ohio Railroad trestle over West Fork of Greenbrier River, in south end of west stone abutment; chiseled square, rail of bridge marked "U. S. 2,720.8 B. M."	2,721.01
Durbin, 0.98 mile southwest of, 5 feet east of track, near south end of long curve in track, on top near end of 15-inch drain pipe; chiseled square, pipe marked "U. S. 2,708.1 B. M."	2,708.33
Durbin, 1.90 miles southwest of, at crossing of railroad and second-class road, 40 feet east by 10 feet south of, on top of rock flush with ground; chiseled square, telephone-pole marked "U. S. 2,685 B. M."	2,685.19
Durbin, 2.75 miles southeast of, 0.61 mile northeast of **Boyer Station**, on east edge of railroad right of way, 50 feet north of farm road crossing, in top of boulder; bronze tablet stamped "2672 W. Va. 1921 H 148", telephone-pole marked "U. S. 2,671.7 B. M."	2,671.940
Witness bench mark, 37.5 feet south 80° west of tablet, on top of boulder; chiseled square	2,672.96

Near Boyer Station.

Boyer Station, in front of; top of rail, end of tie marked "U. S. 2,661.5"	2,661.7
Boyer Station, 0.58 mile southwest of, 10 feet east of track, on top of 15-inch drain pipe; chiseled square, rock marked "U. S. B. M. 2,653.2"	2,653.43

From Durbin northwest along highways to Huttonsville and Mill Creek.

Durbin, 0.63 mile west of, known as **West Durbin**, in top of west end of north abutment to highway bridge over West Fork of Greenbrier River; chiseled square, rail of bridge marked "U. S. 2,732.1 B. M."	2,732.32
Durbin, 1.64 miles northwest of, in forks of Y-road, on top of large boulder; chiseled square, log marked "U. S.	

	Feet.
3,100.6 B. M."	3,100.67
Durbin, 2.60 miles northwest of, on west edge of road, 150 feet northwest of house, on top of large boulder, in angle in road; chiseled square, boulder marked "U. S. 3,285.1 B. M."	3,285.07
Durbin, 3.35 miles northwest of, 900 feet north of dwelling, 50 feet north of road center, 10 feet west of lone oak tree; set in top near south end of large sandstone boulder; bronze tablet stamped "3299 W. Va. 1921 H 133"	3,298.649
Witness bench mark, 63 feet south 80° east of tablet, on top of boulder; chiseled square	3,297.33
Durbin, 4.10 miles northwest of, on west edge of road, north edge of small run, in line with second-class road, on top of large boulder; chiseled square, boulder marked "U. S. 3,317.9 B. M."	3,317.88
Durbin, 4.94 miles northwest of, on west edge of big bend in road, 20 feet north of small run crossing road, on top of boulder; chiseled square, boulder marked "U. S. 3,625.7 B. M."	3,625.46
Durbin, 5.44 miles northwest of, on north side of road, in gap on top of Back Allegheny Mountain, on top of boulder; chiseled square, telephone-pole marked "U. S. 3,756.8 B. M."	3,756.60
Durbin, 5.77 miles northwest of, 30 feet south of road center, 80 feet west of wooden culvert, in top of large boulder; bronze tablet stamped "3,691 W. Va. 1921 H 134", tree marked "U. S. 3,690.7 B. M."	3,690.512
Witness bench mark, 31 feet north 65° east of tablet, on top of boulder; chiseled square	3,689.13
Durbin, 6.62 miles northwest of, 0.7 mile southeast of **Cheat Bridge P. O.,** on east edge of road, 30 feet north of wooden culvert, on top at south end of long sandstone boulder; chiseled square, boulder marked "U. S. 3,650.8 B. M."	3,650.59
Cheat Bridge P. O., 200 feet south of, 120 feet east of county bridge over Shavers Fork of Cheat River, at east end of grass triangle formed by forks of road, on top of boulder; chiseled square, telephone-pole marked "U. S. 3,557.6 B. M."	3,557.48
Cheat Bridge P. O., 200 feet south of, 25 feet east of road, at forks of, on top of boulder; chiseled square	3,558.86
Cheat Bridge P. O., 1.22 miles northwest of, 100 feet south of road center, 130 feet southwest of gap, 70 feet south of trail along ridge, in top of large boulder; bronze	

	Feet.
tablet stamped "3948 W. Va. 1921 H 135", boulder marked "U. S. 3,948 B. M."	3,947.713
Witness bench mark, 39.6 feet north 75° east of tablet, on top of boulder; chiseled square	3,942.35
Cheat Bridge P. O., 2.12 miles northwest of, on south edge of road, at west end of big bend in road, on east edge of branch of Red Run (of Shavers Fork), on top of boulder; chiseled square, boulder marked "U. S. 3,728.2 B. M."	3,728.10
Cheat Bridge P. O., 3.25 miles northwest of, on north edge of road, west edge of path north, 30 feet west of log culvert, on top of boulder; chiseled square, boulder marked "U. S. 3,745 B. M."	3,744.89
Cheat Bridge P. O., 4.23 miles northwest of, 25 feet south of road center, near west end of gap, on top of mountain at **Cromer Top,** in top of sandstone boulder; bronze tablet stamped "3798 W. Va. 1921 H 136", boulder marked "U. S. 3,798.4 B. M."	3,798.181
Witness bench mark, 25.9 feet north 60° west of tablet, on top of boulder; chiseled square	3,796.52
Cheat Bridge P. O., 5.26 miles northwest of, on east edge of road, 40 feet north of mile-post "Elkins 26", and on north edge of run, on top of large boulder; chiseled square, boulder marked "U. S. 3,413.3 B. M."	3,413.28
Cheat Bridge P. O., 6.16 miles northwest of, on east edge of road, at sharp turn in road, on top face of lower ledge of rock, at base of cliff; chiseled square, rock marked "U. S. 3,085 B. M."	3,085.19
Cheat Bridge P. O., 6.89 miles northwest of, 6.35 miles southeast of **Huttonsville,** 30 feet west of road center, 100 north of sharp turn in road just north of run, about 250 feet north of shack, on side of hill, in top of large boulder; bronze tablet stamped "2814 W. Va. 1921 H 137", tree marked "U. S. 2,814.1 B. M."	2,814.378
Witness bench mark, 31.4 feet west of tablet, on top of large boulder; chiseled square	2,809.05
Huttonsville, 5.36 miles southeast of, on west edge of road, 100 feet south of gate, on top face of ledge of rock; chiseled square, rock marked "U. S. 2,516.9 B. M."	2,517.28
Huttonsville, 4.37 miles southeast of, 1,000 feet east of **Riffle Chapel,** 25 feet south of road center, 100 feet east of wooden bridge over McGee Run, in west root of 15-inch walnut tree; copper nail and washer, tree marked "U. S. 2,331.1 B. M."	2,331.67
Huttonsville, 3.45 miles southeast of, 70 feet south of road center, 60 feet west of Riffle Creek, 700 feet west of	

	Feet.
mouth of Laurel Run, in top of concrete post; bronze tablet stamped "2229 W. Va. 1921 H 138", fence marked "U. S. 2,228.6 B. M."	2,229.112
Witness bench mark, 34 feet south 75° west of tablet, on top of flat boulder; chiseled square	2,229.37
Huttonsville, 2.55 miles southeast of, on south edge of road, 400 feet east of dwelling, in west root of 20-inch walnut tree; copper nail and washer, tree marked "U. S. 2,154 B. M."	2,154.60
Huttonsville, 1.86 miles southeast of, on east edge of road, on north edge of lane, northeast up hillside, on top at end of 15-inch drain pipe; chiseled square, rock marked "U. S. 2,110.6 B. M."	2,110.95
Huttonsville, 1.33 miles southeast of, 30 feet west of main road, 30 feet south of cross lane, in corner of pasture, set in top of concrete post; bronze tablet stamped "2060 W. Va. 1921 H 129"	2,060.417
Witness bench mark, 35.6 feet north 10° west of tablet, in south root of 15-inch maple tree; copper nail and washer	2,060.62
Huttonsville, 0.45 mile south of, at southeast corner of new steel bridge over Tygart River, on top of large stone; chiseled square, marked "U. S. 2,029.9 B. M."	2,030.05
Huttonsville, in front of station; top of near rail, end of tie marked "U. S. 2,023.9"	2,023.9
Huttonsville, 0.51 mile north of, 0.76 mile south of **Mill Creek,** on south side of farm road crossing track, at cattle-guard, in east end of stringer between rails of narrow-gage railroad, just east of Western Maryland Railroad; copper nail and washer, fence-post marked "U. S. 2,016.6 B. M."	2,016.52
Mill Creek, in front of station; top of rail	2,016.1
Mill Creek, Western Maryland Railroad bridge over Tygart River, in stone seat of southwest corner of; bronze tablet stamped "2,013" (Bull. 632, p. 37)	2,013.047
From Cheat Bridge southwest along Western Maryland Railroad into Cass Quadrangle.	
Cheat Bridge, 200 feet south of post-office, 120 feet east of steel bridge over Shavers Fork of Cheat River, at east side of triangle formed by road forks, on top of boulder; chiseled square, marked "U. S. 3,557.6 B. M."	3,557.48
Cheat Bridge P. O., 0.90 mile southwest of, at crossing of railroad and dirt road leading to Cheat Bridge Club House, 10 feet east by 25 feet north of, on top of boulder; chiseled square, boulder marked "U. S. 3,565 B. M."	3,564.94

	Feet.
Cheat Bridge P. O., 1.92 miles southwest of, 10 feet west of track, at east end of big cut, on north end of long boulder; chiseled square, boulder marked "U. S. 3,580.6 B. M."	3,580.56
Cheat Bridge P. O., 2.62 miles southwest of, 1,400 feet south of mile-post C 21, west side of track, in top of large boulder; bronze tablet stamped "3588 W. Va. 1921 H. 140", boulder marked "U. S. 3,588.4 B. M."	3,588.393
Witness bench mark, 19 feet south 80° west of tablet, on top at east end of boulder; chiseled square	3,588.56
Cheat Bridge P. O., 3.53 miles southwest of, 10 feet east of track, on top of boulder; chiseled square, boulder marked "U. S. 3,601.3 B. M."	3,601.24
Cheat Bridge P. O., 4.35 miles southwest of, 0.30 mile north of water-tank, 50 feet north of mile-post C 19, in top face of stringer between rails of trestle; copper nail and washer, stringer marked "U. S. 3,612.1 B. M."	3,612.10
Cheat Bridge P. O., 5.35 miles southwest of, 30 feet north of mile-post C 18, 20 feet west of track, in top of stump; copper nail and washer, stump marked "U. S. 3,621.5 B. M."	3,621.50
Cheat Bridge P. O., 6.21 miles southwest of, 950 feet north of mile-post C 17, 10 feet east of track in top near east end of large boulder; bronze tablet stamped "3639 W. Va. 1921 H 141", boulder marked "U. S. 3,638.5 B. M."	3,638.506
Witness bench mark, 56 feet south 20° west of tablet, on top of boulder; chiseled square	3,635.99
Cheat Bridge P. O., 7.09 miles southwest of, 1,450 feet north of mile-post C 16, 20 feet south of spring, 10 feet west of track, on top of large boulder; chiseled square, boulder marked "U. S. 3,662.8 B. M."	3,662.76
Cheat Bridge P. O., 8.16 miles southwest of, 6.80 miles north of **Spruce P. O.**, 700 feet north of coaling station at **Hopkins**, 10 feet west of track, on top of large boulder; chiseled square, boulder marked "U. S. 3,682.8 B. M."	3,682.83
Spruce P. O., 5.77 miles north of, 1,000 feet north of mile-post C 14, 530 feet south of shack, 10 feet from track, in top of large boulder; bronze tablet stamped "3702 W. Va. 1921 H 142", boulder marked "U. S. 3,701.8 B. M."	3,701.770
Witness bench mark, 158.8 feet south 45° east of tablet, on top of large boulder; chiseled square	3,702.46
Spruce P. O., 4.75 miles north of, 1,200 feet north of mile-post C 13, 10 feet west of track, on top of large boulder; chiseled square, boulder marked "U. S. 3,728.9 B. M."	3,728.95

	Feet.
Spruce P. O., 3.84 miles north of, 1,200 feet south of railroad trestle over Shavers Fork of Cheat River, 40 feet south of shack, 10 feet east of track, on top of large boulder; chiseled square, boulder marked "U. S. 3,738.1 B. M."...	3,738.16
Spruce P. O., 2.79 miles north of, 1,250 feet north of mile-post C 11, 20 feet east of track, in top of boulder; bronze tablet stamped "3769 W. Va. 1921 H 143", boulder marked "U. S. 3,769.1 B. M.".....	3,769.130
Witness bench mark, 35.4 feet south of tablet, on top of boulder; chiseled square.....	3,768.29
Spruce P. O., 1.84 miles north of, 1,500 feet north of mile-post C 10, 700 feet north of railroad trestle over Shavers Fork of Cheat River, 10 feet east of track, on top of large boulder; chiseled square, boulder marked "U. S. 3,797.4 B. M.".....	3,797.46
Spruce P. O., 0.77 mile north of, 110 feet south of stream crossing, 10 feet east of track, on top of boulder; chiseled square, boulder marked "U. S. 3,829.5 B. M."...	3,829.52

HIGHTOWN QUADRANGLE: POCAHONTAS COUNTY.

(Latitude 38° 15′-38° 30′; Longitude 79° 30′-79° 45′).

Primary leveling by E. E. Harris in 1921:

From near southwest corner of Spruce Knob Quadrangle along highways south to Top of Allegheny, thence through northwest part of quadrangle into Cass Quadrangle.

Bartow, 7.74 miles southwest of, on south edge of sharp turn in road, 60 feet west of second-class road to east, in east root of tall oak stump; copper nail and washer, tree marked "U. S. 3,963.8 B. M.".....	3,963.68
Bartow, 8.44 miles southeast of, at **Top of Allegheny**, in southwest corner of ⊤-road west, along Buffalo Ridge, in corner of pasture field, set in top of concrete post; bronze tablet stamped "4199 W. Va. 1921 H 130", fence-post marked "U. S. 4,199.5 B. M.".....	4,199.312
Witness bench mark, 83.6 feet south of tablet, on top of boulder; chiseled square.....	4,202.7
Top of Allegheny, 0.73 mile southwest of, on east edge of road, west edge of dim road, in west root of 12-inch oak tree; copper nail and washer, tree marked "U. S. 4,199.7 B. M.".....	4,199.48
Top of Allegheny, 1.46 miles southwest of, on east edge of road and south edge of lane through gate, in west root of 15-inch oak tree; copper nail and washer, fence-rail marked "U. S. 4,112.1 B. M.".....	4,111.93

Feet.

Top of Allegheny, 2.22 miles southwest of, on east edge of road, at forks of private lane southeast, on Buffalo Ridge, in west root of 20-inch chestnut oak tree; copper nail and washer, gate-post marked "U. S. 4,146.3 B. M." (eastern edge of Cass Quadrangle)..... 4,146.13

LOBELIA QUADRANGLE: GREENBRIER, POCAHONTAS, WEBSTER, AND NICHOLAS COUNTIES.

(Latitude 38° 00′-38° 15′; Longitude 80° 15′-80° 30′).

Third order leveling by C. F. Shalibo in 1920:

From Marlinton Quadrangle near Locust P. O. (Spice Run) southwest along Chesapeake and Ohio Railroad to point 2.10 miles northeast of Renick, White Sulphur Springs Quadrangle.

Locust P. O. (Spice Run), 4.1 miles southwest of, on Chesapeake and Ohio Railroad, 100 feet northeast of **Droop Mountain Station**, on north side of track, in large boulder; bronze tablet stamped "W. Va. 1920 1,948"..... 1,947.867

Locust P. O. (Spice Run), 5.4 miles southwest of, on Chesapeake and Ohio Railroad, at **Rorer Station**, 0.1 mile south of tunnel, 60 feet northeast of station, in base of post; iron spike, painted "1,935.1"..... 1,934.71

Renick, 4.7 miles northeast of, on Chesapeake and Ohio Railroad, 170 feet southwest of **Horrock Station**, at southeast corner of bridge No. 296, in stone coping; chiseled square, painted "1,916.7"..... 1,916.28

Renick, 3.3 miles northeast of, on Chesapeake and Ohio Railroad, 100 feet northwest of **Golden Station**, 30 feet west of track, in large boulder; bronze tablet stamped "W. Va. 1920 1,899"..... 1,898.092

Renick, 2.1 miles northeast of, on Chesapeake and Ohio Railroad, 80 feet southeast of mile-post 27, 30 feet east of track, in base of telephone-pole; iron spike, painted "1,886.0"..... 1,885.56

Third order leveling by E. E. Harris in 1921:

From point northeast of Williamsburg in White Sulphur Springs Quadrangle along highways northeast to Friar Hill, thence southeast to Renick.

Williamsburg, 3.3 miles north of, 2 miles southwest of **Friar Hill**, on west edge of road, 60 feet south of crossroads, in east root of 15-inch jack oak tree; copper nail and washer, tree blazed and marked "T. B. M. 2,189.6"..... 2,189.61

Friar Hill, 1.1 miles southwest of, on inside of angle in road, 3 feet east of box culvert, on rock boulder; chiseled square, marked "T. B. M. 2,241.9"..... 2,241.17

	Feet.
Friar Hill, in southwest corner of road forks, in top of rock in place; bronze tablet stamped "2352 H 7 1921 W. Va"	2,351.865
Witness bench mark, 36.7 feet north 65° east, in forks of road, in north root of 18-inch oak tree; copper nail and washer	2,348.90
Friar Hill, 0.8 mile east of, on west edge of road south, opposite forks of road east, in root of 10-inch hickory tree; copper nail and washer, tree blazed and marked "T. B. M. 2,342.8"	2,342.82
Friar Hill, 1.5 miles east of, on south edge of road, 30 feet east of lane through gate to farmhouse of J. S. Shafe, on top of rock outcrop; chiseled square, fence railing marked "T. B. M. 2,368.3"	2,368.34
Friar Hill, 3.5 miles east of, 4.8 miles west of **Renick,** at road forks, in southeast corner in top of rock in place; bronze tablet stamped "H 8 1921 W. Va. Elev. 1936"	1,935.987
Witness bench mark, 43 feet south 80° west, on northwest corner of large flat boulder	1,937.93
Renick, 3.9 miles northwest of, on east side of road, about 150 feet north of ford over Spring Creek, in top of tall stump; copper nail and washer, marked "U. S. B. M. 1,918.9"	1,918.99

Third order leveling by H. P. Kilby, J. L. Lenovitz, and H. R. Kilmer in 1921:

From Trout P. O. north along highway to Manning Knob.

Trout P. O., at road forks, in Y, top of boulder; chiseled square, painted "2,273.8"	2,273.71
Trout P. O., 1.2 miles north of, at west edge of road, point of ledge; bronze tablet stamped "2522 K 6 W. Va. 1921"	2,521.579
Reference mark, 55 feet south of permanent bench mark, 110 feet west of Little Roaring Creek, top of rock; chiseled square	2,514.20
Trout, 2.3 miles north of, at point of curve on slope of hill, top of rock at east edge of road; chiseled square, painted "2,928.8"	2,928.56
Trout, 3.5 miles north of, outcrop of ledge, at west edge of road; chiseled square, painted "3,499.0"	3,498.48
Trout, 4.2 miles north of, 40 feet west of road, top of large boulder, 3 feet above ground, on sharp curve in road, 30 feet west of fence corner; bronze tablet stamped "3827 K 7 1921"	3,827.073

	Feet.
Reference mark, north 50° east 41.6 feet from permanent bench mark; chiseled square on rock	3,827.61
Trout, 5.3 miles north of, 240 feet north of road to top of mountain, at west edge of road, on boulder; chiseled square, painted "4,085.7"	4,084.73
Richwood, about 12.75 miles southeast of, southwest of Greenbrier road, 795 feet northwest of road to Duo, in rock; aluminum tablet stamped "W. Va. 1921 K Elev. 4117" (set in 1921 0.512 foot above center of hole at site of old tablet, described in Bulletin 632, p. 58)	4,117.455
Richwood, about 12.75 miles southeast of, southwest of Greenbrier road, 795 feet northwest of road to Duo, in rock; hole drilled horizontally in vertical face of rock, formerly occupied by tablet (Bulletin 632, p. 58)	4,116.943
Reference T. B. M., directly under P. B. M., in point of rock; chiseled square	4,116.70
Richwood, 12.8 miles south of, at west edge of road, on rock; chiseled square, painted "3,873.6"	3,872.69
Richwood, 12 miles south of, at second-class road forks west, top of large boulder, 30 feet west of road; bronze tablet stamped "W. Va. K 8 1921 Elev. 3954"	3,953.566
Reference mark, 17.5 feet south of P. B. M., on rock; chiseled square	3,951.84
Richwood, 10.9 miles south of, at top of mountain, 10 feet west of road, in top of large rock; chiseled square, painted "3,966.6"	3,965.68
Richwood, 9.6 miles south of, at old camping ground, in root of 30-inch sugar maple tree, 15 feet east of road; copper nail and washer, painted "3,831.6"	3,830.70
Richwood, 9.0 miles south of, on north slope of hill, 15 feet north of Greenbrier road, in top of large boulder; bronze tablet stamped "3843 K 9 1921 W. Va."	3,843.280
Reference mark, 25 feet east of P. B. M., on rock; chiseled square	3,843.88
(Note: P. B. M. Elev. 3,710.922 feet, which should come between these two B. M's., has been completely destroyed. Bull. 632, p. 58).	
Richwood, 7.9 miles south of, point of ledge, at east edge of road; chiseled square, painted "3,678.3"	3,677.37
Richwood, 7.2 miles south of, at top of **Manning Knob**, in root of 20-inch oak stump, at west edge of road; copper nail, painted "3,914.5"	3,913.55

Third order leveling by P. E. Davenport in 1922:

From near Richwood (Richwood Quadrangle) southeast along highways to Little Rocky Creek. Spur leveled twice.

	Feet.
Bridge over first creek at west end of, painted "2,336".....	2,336.1
Richwood, 3.52 miles southeast of, 30 feet north 30° east of center of road, 43 feet west of Mr. Cunningham's house, in large sandstone boulder; bronze tablet stamped "W. Va. D Elev. 2360", rock painted "U. S. 2,360.3 B. M."...	2,360.260
Witness mark, 57 feet south of P. B. M., 27 feet southwest of center of road; chiseled square on sandstone boulder.....	2,358.26

Third order leveling by P. E. Davenport in 1922:

In front of large boulder, painted "2,413".....	2,412.9
Richwood, 4.67 miles southeast of, 1.15 miles east of Mr. Cunningham's house, on north bank of Cherry River; on sandstone rock, painted "U. S. 2,442.7 B. M."; chiseled square.....	2,442.59
On west bank of creek, painted "2,464".....	2,464.6
At fence across old grade, painted "2,483".....	2,483.0
Richwood, 5.73 miles southeast of, 15 feet east of bank of river on east margin of old railroad grade, on sandstone boulder, painted "U. S. 2,502.8 B. M."; chiseled square..	2,502.65
Witness mark, in sandstone rock, 60 feet east of B. M., on north bank of river; chiseled square.....	2,536.5
Richwood, 6.31 miles southeast of, 15 feet north of bank of Cherry River, on north margin of old railroad grade, in sandstone boulder; bronze tablet stamped "2535", painted "U. S. 2,535.2 B. M.".....	2,535.038
Gate to farmhouse, painted "2,546".....	2,545.6
Richwood, 7.38 miles southeast of, 450 feet west of abandoned house, on south side of old railroad grade, in sandstone rock; chiseled square, painted "U. S. 2,592.7 B. M.".....	2,592.49
Richwood, 8.12 miles southeast of, 0.75 mile east of large abandoned house, in sandstone boulder, 30 feet north of old railroad grade; chiseled square, boulder painted "U. S. 2,657.1 B. M.".....	2,656.86
Witness mark, in sandstone rock, on east side of grade; chiseled square.....	2,717.45
Richwood, 8.74 miles southeast of, on west bank of river, 1.36 miles south of old abandoned house, in large sandstone boulder; bronze tablet stamped "2717"; tree 15 feet south painted "U. S. 2,716.7 B. M.".....	2,716.419

	Feet.
From Marlinton Quadrangle along highways west to Lobelia, thence to Jacox, thence west and south to point 3.5 miles east of Friar Hill.	
Hillsboro, 3.23 miles west of, on east edge of road, at base of rock cliff, on top of ledge of rock; chiseled square, rock marked "U. S. 2,903.6 B. M."	2,903.36
Hillsboro, 4.15 miles west of, east side of **Caesar Mountain School,** 15 feet south of road center, in top of large sandstone boulder; bronze tablet stamped "2994 W. Va. 1921 H", pole marked "U. S. 2,993.8 B. M."	2,993.753
Witness mark, in root of tree, copper nail and washer	2,993.94
At ⊤-road west, "2,973" marked	2,972.7
Center of railroad crossing, on top of west rail, painted "2,826.6"	2,826.5
Hillsboro, 5.15 miles west of, 2.30 miles south of ⊤-road, in south root of hickory tree, on south side of road; copper nail and washer, tree marked "U. S. 2,698.1 B. M."	2,697.99
At Y-road, marked "2,513"	2,512.6
Hillsboro, 6.05 miles west of, 0.85 mile east of **Lobelia,** 40 feet south of center of road, in south root of oak tree, on south margin of road leading to farmhouse; copper nail and washer, elevation painted on tree 80 feet east of bench mark "U. S. 2,531.4 B. M."	2,531.29
Center of road, 125 feet west of creek, painted on fence "2,528"	2,527.9
Witness bench mark, in boulder, on south side of road, 40 feet east of P. B. M.; chiseled square	2,505.64
Lobelia, 190 feet east of post-office, 15 feet south of center of road, in large limestone boulder, in front of small two-room house, rock painted (erroneously) "U. S. 2,605.2 B. M.", bronze tablet stamped "2,505"	2,505.114
Bridge, at east end of concrete bridge, painted (erroneously) "2,579"	2,477.79
Lobelia, 0.77 mile south of, 15 feet south of center of track, 20 feet north of creek, in north root of 10-inch pine tree; copper nail and washer, painted (erroneously) "U. S. 2,594.6 B. M."	2,494.53
Center of crossroads, on point of mountain, painted on mail-box post "2,818.6" (painted erroneously)	2,718.4
Creek, marked "2,687" (erroneously marked)	2,590.0
In front of large oak tree 15 feet west of	

	Feet.
From Marlinton Quadrangle along highways west to Lobelia, thence to Jacox, thence west and south to point 3.5 miles east of Friar Hill.	
Hillsboro, 3.23 miles west of, on east edge of road, at base of rock cliff, on top of ledge of rock; chiseled square, rock marked "U. S. 2,903.6 B. M."	2,903.36
Hillsboro, 4.15 miles west of, east side of **Caesar Mountain School,** 15 feet south of road center, in top of large sandstone boulder; bronze tablet stamped "2994 W. Va. 1921 H", pole marked "U. S. 2,993.8 B. M."	2,993.753
Witness mark, in root of tree, copper nail and washer	2,993.94
At ⊤-road west, "2,973" marked	2,972.7
Center of railroad crossing, on top of west rail, painted "2,826.6"	2,826.5
Hillsboro, 5.15 miles west of, 2.30 miles south of ⊤-road, in south root of hickory tree, on south side of road; copper nail and washer, tree marked "U. S. 2,698.1 B. M."	2,697.99
At Y-road, marked "2,513"	2,512.6
Hillsboro, 6.05 miles west of, 0.85 mile east of **Lobelia,** 40 feet south of center of road, in south root of oak tree, on south margin of road leading to farmhouse; copper nail and washer, elevation painted on tree 80 feet east of bench mark "U. S. 2,531.4 B. M."	2,531.29
Center of road, 125 feet west of creek, painted on fence "2,528"	2,527.9
Witness bench mark, in boulder, on south side of road, 40 feet east of P. B. M.; chiseled square	2,505.64
Lobelia, 190 feet east of post-office, 15 feet south of center of road, in large limestone boulder, in front of small two-room house, rock painted (erroneously) "U. S. 2,605.2 B. M.", bronze tablet stamped "2,505"	2,505.114
Bridge, at east end of concrete bridge, painted (erroneously) "2,579"	2,477.79
Lobelia, 0.77 mile south of, 15 feet south of center of track, 20 feet north of creek, in north root of 10-inch pine tree; copper nail and washer, painted (erroneously) "U. S. 2,594.6 B. M."	2,494.53
Center of crossroads, on point of mountain, painted on mailbox post "2,818.6" (painted erroneously)	2,718.4
Creek, marked "2,687" (erroneously marked)	2,590.0

	Feet.
Lobelia, 2.0 miles south of, 25 feet southwest of road, on west bank of creek, on large boulder; chiseled square, painted "U. S. 2,638.0 B. M." (erroneously marked).....	2,537.86
At gate, (erroneously) marked "2,685".....	2,585.0
At gate, (erroneously) marked "2,818".....	2,718.0
Lobelia, 3.17 miles south of, 15 feet east of center of road, in west root of 20-inch chestnut tree; copper nail and washer, tree marked with a white cross, stump on west side of road (erroneously) painted "U. S. 2,812.3 B. M."	2,712.07
Lobelia, 3.48 miles south of, 23 feet east of northwest corner of **Oak Grove School**, in large sandstone rock, rock 10 feet west marked "U. S. 2,776 B. M." (erroneously marked); bronze tablet stamped "2,677".....	2,676.764
Witness bench mark, in west root of maple tree, 50 feet east of **Oak Grove School** road, 45 feet north of school, 76 feet northwest of tablet; copper nail and washer.....	2,676.69
At gate, near church (erroneously) marked "2,812".....	2,709.8
At ⊤-road, elevation painted (erroneously) "2,632".....	2,538.1
Jacox P. O., 600 feet west of, 20 feet east of center of road, in west root of oak tree, marked (erroneously) "U. S. 2,727.3 B. M."; copper nail and washer.....	2,627.13
At ⊤-road, painted (erroneously) "2,980".....	2,882.2
Jacox P. O., 1 mile northwest of, 15 feet south of center of road, in south root of locust tree; copper nail and washer, painted (erroneously) "U. S. 3,144.3" B. M."...	3,044.03
Jacox P. O., 1.14 miles northwest of, on top of mountain, in north root of oak tree, on south side of road, mail-box post on north side of road painted (erroneously) "U. S. 3,346.4 B. M."; copper nail and washer.....	3,246.09
At sharp curve, painted on gate (erroneously) "3,166".....	3,066.1
At gate, (erroneously) painted "3,049".....	2,949.1
Boggs Run School, 15 feet from southeast corner of school, in large boulder; bronze tablet stamped "2707 W. Va. D", rock painted (erroneously) "U. S. 2,807.5 B. M.".....	2,707.264
Witness bench mark, 23 feet southwest of southwest corner of **Boggs Run School**, 53 feet west of bronze tablet, in small rock; chiseled square.....	2,703.56
On bank of Boggs Run at curve in road.....	2,617.5
At gate, painted "2,504".....	2,503.3

	Feet.
Boggs Run School, 1 mile southwest of, 15 feet north of center of road, 80 feet east of intersection of Two Creek, in sandstone rock; chiseled square, painted "U. S. 2,377.9 B. M."	2,377.70
In front of stiles, in front of church, marked "2,330"	2,329.5
At gate, marked "2,313"	2,312.8
Sugar Grove School, 221 feet N. 40° W. of, 20 feet east of center of road, on west side of Robbins Run, in large sandstone rock; bronze tablet stamped "W. Va. 2226 D", rock marked with a white cross, barn painted "U. S. 2,226.2 B. M."	2,226.930
Witness bench mark, 102 feet south of tablet, in west root of maple tree; copper nail and washer	2,227.10
At gate, marked "2,215"	2,215.0
Sugar Grove School, 1.14 miles south of, in large boulder, on west margin of road; chiseled square, rock painted "U. S. 2,173.2 B. M."	2,172.92
Sugar Grove School, 1.89 miles south of, 60 feet north of road fork, on large limestone boulder, on east margin of road; chiseled square, painted "U. S. 2,123.6 B. M."	2,123.37
At corner of Boice store, painted "2,070"	2,069.8
At ⊤-road north, painted "2,060"	2,060.0
Sugar Grove School, 2.81 miles south of, at fork of Y-road, on west side, in sandstone rock; chiseled square, painted "U. S. 2,051.9 B. M."	2,051.69
Large white house, 300 feet east of, 350 feet north of road, in large limestone boulder, on side of hill, rock marked with an arrow; barn painted "U. S. 2,012.1 B. M."; bronze tablet stamped "2,012"	2,011.844
Witness bench mark, 28 feet northeast from tablet, in small limestone rock; chiseled square	2,009.45
Dry Run, 2.28 miles south of, 0.97 mile south of bench mark in Mr. Bearden's yard; on limestone boulder, on east side of railroad; chiseled square, tie is marked "U. S. 1,983.5 B. M." with kiel	1,983.23
At east end of trestle	1,971.8
At switch near camp	1,947.6
At west end of trestle	1,939.7
At road crossing	1,936.2

From Lobelia northwest along highways 3.75 miles. (Spur line leveled twice by P. E. Davenport in 1922).

	Feet.
Lobelia, 1.03 miles northwest of, 30 feet west of east rail, in root of old stump; copper nail and washer, tie painted "U. S. 2,565.9 B. M."	2,565.91
Lobelia, 2 miles northwest of, 5 feet west of track, on west side of large sandstone boulder, 100 feet west of unpainted house; chiseled square, painted "U. S. 2,666.6 B. M."	2,666.50
Lobelia, 3.25 miles north of, 65 feet south of center of track, 0.3 mile west of large white house; in large sandstone boulder; bronze tablet stamped "W. Va. D Elev. 2877"..	2,876.551
Witness bench mark, on sandstone rock, 70 feet west of bench mark, 10 feet south of track; chiseled square....	2,876.95
Lobelia, 3.75 miles northwest of, south side of track, 20 feet west of switch, in sandstone boulder; chiseled square, painted "U. S. 3,045.7 B. M."	3,046.56

MARLINTON QUADRANGLE: POCAHONTAS AND GREENBRIER COUNTIES.

(Latitude 38° 00′-38° 15′; Longitude 80° 00′-80° 15′).

(Permanent bench marks stamped in 1924 by G. E. Sisson).

Primary leveling by C. F. Shalibo in 1920:

From point 4.60 miles north of Sue P. O., Callaghan Quadrangle, north and west along highways and Chesapeake and Ohio Railroad to point 1.90 miles southwest of Locust P. O. (Spice Run), Lobelia Quadrangle.

Sue P. O., 4.6 miles north of, on Little Creek road, 50 feet north of small bridge over stream, 0.2 mile southeast of deserted farmhouse, 10 feet east of road, in root of large oak tree; copper nail, painted "2,334.3"	2,334.04
Sue P. O., 5.4 miles north of, on Little Creek road, 100 feet northwest of house, 10 feet south of road, in root of oak tree; copper nail, painted "2,463.1"	2,462.86
Sue P. O., 7.0 miles northwest of, on old trail on Spice Run, 0.2 mile west of old Coulter place, 15 feet west of road, in large rock; bronze tablet stamped "W. Va. 1920 2,334"	2,334.272
Locust P. O. (Spice Run), 3.0 miles southeast of, on Spice Run, along old trail, at old lumber camp site, 20 feet west of small building, on east edge of trail, in root of tree; copper nail, painted "2,220.6"	2,220.32
Locust P. O. (Spice Run), 1.4 miles southeast of, on Spice Run, along old trail, 100 feet west of stream crossing, 0.5	

	Feet.
mile east of Greenbrier River, on west edge of trail, in root of tree; copper nail, painted "2,030.0"	2,029.68
Locust P. O. (Spice Run), 0.9 mile southwest of, on Chesapeake and Ohio Railroad, on east side of track, at small culvert over drain, in stone coping; bronze tablet stamped "W. Va. 1920 1,978"	1,975.559
Locust P. O. (Spice Run), 1.9 miles southwest of, on Chesapeake and Ohio Railroad, on west side of track, in ledge of rock; chiseled square, painted "1,977.9"	1,977.52

Primary leveling by E. E. Harris in 1921:

From Mingo Quadrangle near its southeast corner along Chesapeake and Ohio Railroad to Spice Run (Locust P. O.) near southwest corner of quadrangle.

August, top of rail in front of station-sign, end of tie marked "U. S. 2,165.6"	2,165.9
August, 160 feet south of station, 25 feet east of track, in northeast corner of small wooden bridge over drain; copper nail and washer, gate-post marked "U. S. B. M. 2,164.4"	2,164.71
August, 0.78 mile southwest of, 3.35 miles northeast of **Marlinton**, at **Knapp**, 70 feet north of road crossing, 10 feet east of track, in east end of south bridge seat of railroad trestle No. 595 over Halfway Run; chiseled square, bridge seat of bridge marked "U. S. B. M. 2,154.9"	2,155.15
Marlinton, 2.51 miles northeast of, 2,000 feet south of mile-post W 59, 15 feet east of track, in top face of rock ledge, at base of cliff; bronze tablet stamped "W. Va. 1921 H 159 2148"; rock marked "U. S. B. M. 2,147.7"	2,148,043
Witness bench mark, 76.8 feet west of tablet, on top of boulder; chiseled square	2,146.48
Marlinton, 1.56 miles north of, 1,650 feet south of mile-post W 58, 10 feet east of track, on top face of large rock ledge; chiseled square, rock marked "U. S. B. M. 2,138.7"	2,139.00
Marlinton, 0.63 mile northeast of, 30 feet north of target-switch, on bank, 15 feet west of track, on top of large boulder; chiseled square, boulder marked "U. S. B. M. 2,135.8"	2,136.12
Marlinton, in front of station; top of near rail of main-line track, end of tie marked "U. S. 2,127.1"	2,127.4
Marlinton, 950 feet west of railroad station, 50 feet south of concrete road and 60 feet east of east end of concrete highway bridge over Greenbrier River; bronze tablet stamped "W. Va. 1921 H 160 2122", telephone-pole marked "U. S. B. M. 2,122.2"	2,122.574

	Feet.
Witness bench mark, 58.3 feet south 70° west of tablet, in east root of 12-inch yellow poplar tree; copper nail and washer	2,123.19
Marlinton, 900 feet west by 1,350 feet south of station, 154 feet west of road center, 6.1 feet north of shed at rear of home of R. B. Slaven, set in top of large concrete post; bronze tablet stamped "W. Va. 1921 H 2124", telephone-pole marked "U. S. B. M. 2,123.5"	2,123.828
Witness bench mark, 111.9 feet north 5° west of tablet in south root of 30-inch tree; copper nail and washer	2,124.15
Stillwell, top of near rail in front of station-sign, end of tie marked "U. S. 2,127.6"	2,127.9
Stillwell, 190 feet south of station, east side of track, in east end of bridge seat of railroad trestle No. 550; chiseled square, guard-rail of trestle marked "U. S. B. M. 2,125.6"	2,125.94
Stillwell, 1 mile southwest of, 1.90 miles northeast of **Buckeye,** 370 feet north of mile-post W 54, in east end of south bridge seat of railroad trestle No. 541 over Sunday Lick Run; chiseled square, guard-rail of trestle marked "U. S. B. M. 2,115.6"	2,115.91
Buckeye, 1.11 miles northeast of, 1,500 feet north of mile-post W 53, 20 feet east of track, on top face of ledge of rock, at base of cliff; chiseled square, rock marked "U. S. B. M. 2,115.2"	2,115.52
Buckeye, 0.58 mile northeast of, 28.6 feet south of track, in center of top of large boulder; bronze tablet stamped "W. Va. 1921 H 186 2115", boulder marked "U. S. B. M. 2,114.6"	2,114.944
Witness bench mark, 52.3 feet north of tablet, on top of large boulder; chiseled square	2,108.24
Buckeye, 140 feet north of station, in southeast corner of crossing of railroad and dirt road, 50 feet east by 30 feet south of, in west root of 20-inch oak tree; copper nail and washer, tree marked "U. S. B. M. 2,105.3"	2,105.57
Buckeye, in front of station; top of near rail, end of tie marked "U. S. 2,106.9"	2,107.2
Buckeye, 0.76 mile southeast of, 2,500 feet north of mile-post W 51, in east end of south bridge seat of railroad trestle No. 514; chiseled square, guard-rail of trestle marked "U. S. B. M. 2,099.5"	2,099.81
Buckeye 1.65 miles south of, 2,460 south of mile-post W 51, 15 feet east of track, 10 feet south of small culvert, on top of large boulder; chiseled square, boulder marked "U. S. B. M. 2,091.8"	2,092.12

	Feet.
Buckeye, 2.36 miles southwest of, 0.56 feet northeast of Violet, 1,040 feet south of mile-post W 50, 15 feet east of track, on top of boulder; chiseled square, boulder marked "U. S. B. M. 2,088.4"	2,088.69
Violet, in front of station-sign; top of near rail, end of tie marked "U. S. 2,085.5"	2,085.8
Violet, 840 feet south of station, 20 feet east of track, in top of boulder; bronze tablet stamped "W. Va. 1921 H 187 2084", boulder marked "U. S. B. M. 2,083.7"	2,084.005
Witness bench mark, 145 feet north 50° east of tablet, on top of boulder; chiseled square	2,084.29
Watoga, in front of station-sign; top of near rail, end of tie marked "U. S. 2,079.5"	2,079.8
Watoga, 920 feet south of station, at railroad trestle No. 479, in northeast corner of bridge seat; chiseled square, rail of trestle marked "U. S. B. M. 2,077"	2,077.31
Watoga, 2.27 miles southwest of track, 250 feet south of road crossing, on top of boulder; chiseled square, boulder marked "U. S. B. M. 2,065.4"	2,065.75
Seebert, 0.64 mile north of, at railroad trestle No. 464 over Stamping Creek, in east end of south bridge seat top; chiseled square, abutment marked "U. S. B. M. 2,061.8"	2,062.08
Seebert, in front of station; top of near rail of main-line track, end of tie marked "U. S. 2,059.1"	2,059.4
Seebert, 150 feet southeast of station, 60 feet east of track, in top of large boulder; bronze tablet stamped "W. Va. 1921 H 188 2049", telegraph-pole marked "U. S. B. M. 2,049.4"	2,049.741
Witness bench mark, 54.3 feet south 40° west of tablet, on top of boulder; chiseled square	2,051.42
Seebert, 1.21 miles southwest of, 30 feet north of track, 60 feet west of gate to pasture, in top of large stump; copper nail and washer, fence-post marked "U. S. B. M. 2,050.9"	2,051.26
Seebert, 2.11 miles south of, 1.11 miles northeast of **Kennison,** 10 feet west of track, 80 feet north of cattle-guard, on top face of ledge of rock, at base of cliff; chiseled square, rock marked "U. S. B. M. 2,043.3"	2,043.64
Kennison, 840 feet east of station, 240 feet east of road crossing, 29.4 feet north of track, in top of large sandstone boulder; bronze tablet stamped "W. Va. 1921 H 189 2036", boulder marked "U. S. B. M. 2,035.9"	2,036.247
Witness bench mark, 137.2 feet north 50° west of tablet, on top of boulder; chiseled square	2,033.33

	Feet.
Kennison, in front of station, end of tie marked "U. S. 2,033.8", top of near rail	2,034.2
Kennison, 0.84 mile west of, 70 feet east of **Burnsides**, north side of track, in north end of west stone bridge seat of railroad trestle No. 417; chiseled square, guard-rail of trestle marked "U. S. B. M. 2,025.2"	2,025.57
Burnsides, in front of station; top of near rail, end of tie marked "U. S. 2,028.4"	2,028.8
Burnsides, 0.80 mile west of, 70 feet east of **Mill Run Station**, in south end of east bridge seat of railroad trestle No. 409; chiseled square, guard-rail of trestle marked "U. S. B. M. 2,022.6"	2,022.93
Mill Run, in front of station; top of near rail, end of tie marked "U. S. 2,025"	2,025.3
Mill Run, 1.17 miles southeast of, 0.43 mile north of **Denmar**, 10 feet west of track, on top of 15-inch drain pipe; chiseled square, rock marked "U. S. B. M. 2,017"	2,017.42
Denmar, in front of station-sign; top of near rail, end of tie marked "U. S. 2,015.4"	2,015.8
Denmar, 150 feet southwest of station, 100 feet west of track, southeast corner of large concrete block; bronze tablet stamped "W. Va. 1921 H 190 2023", block marked "U. S. B. M. 2,023.1"	2,023.412
Witness bench mark, 51.4 feet south 15° west of tablet, in top of stump; copper nail and washer	2,021.24
Denmar, 0.88 mile southwest of, 100 feet west of **Beard Station**, north side of track, in northwest corner of station platform, top of iron bolt, painted white, telegraph-pole marked "U. S. B. M. 2,010.1"	2,010.44
Beard, in front of station; top of near rail, end of tie marked "U. S. 2,009.7"	2,010.00
Beard, 0.92 mile southwest of, 0.18 mile northeast of **Locust Station**, west side of track, in west end of south bridge seat of railroad trestle No. 376 over Locust Creek; chiseled square, guard-rail marked "U. S. B. M. 1,997.8"	1,998.16
Locust Station, in front of station-sign; top of rail, end of tie marked "U. S. 1,998.7"	1,999.1
Locust Station, 0.65 mile south of, 0.59 mile north of **Spice Run (Locust P. O.)**, west side of track, 360 feet south of run, on top of boulder; chiseled square; rock marked "U. S. B. M. 1,993.6"	1,993.97
Spice Run (Locust P. O.), in front of station-sign; top of rail, end of tie marked "U. S. 1,998.5"	

	Feet.
Spice Run (Locust P. O.), 100 feet southwest of station, west of track, inside fence line, in south root of trunk of tree; copper nail and washer, tree marked "U. S. B. M. 1,987"	1,987.37
Spice Run (Locust P. O.), 0.69 mile south of station, east of track, in center of stone coping of culvert; bronze tablet stamped "1976"	1,975.559
From Warm Springs Quadrangle southwest along highway down Anthony Creek in southeast part of quadrangle into Callaghan Quadrangle.	
Trainer P. O., 2.96 miles northeast of, in southeast corner of cattle-guard, between rails of log railroad, in end of stringer; copper nail and washer, fence marked "U. S. B. M. 2,371.1"	2,371.47
Trainer P. O., 2.38 miles northeast of, 40 feet west of road center, on south bank of Anthony Creek, set in top of concrete post; bronze tablet stamped "W. Va. 1921 H 172 2345", corner fence-post marked "U. S. B. M. 2,345"	2,345.410
Witness bench mark, 92.8 feet east of tablet, on top of large boulder, at north end of foot-bridge over Anthony Creek; chiseled square	2,342.42
Trainer P. O., 1.32 miles northeast of, 50 feet north of road, on south bank of Anthony Creek, 20 feet west of fence line, in south root of 10-inch sycamore tree; copper nail and washer, tree marked "U. S. B. M. 2,293.1"	2,293.54
Trainer P. O., 0.17 mile northeast of, on west edge of road, 100 feet south of **May Chapel**, in south root of forked oak tree; copper nail and washer, tree marked "U. S. B. M. 2,254.1"	2,254.54
Trainer P. O., 0.64 mile southwest of, 35 feet north of road center, in front of home of G. H. Rucker, set in top of concrete post; bronze tablet stamped "W. Va. 1921 H 173 2217", fence-post marked "U. S. B. M. 2,217.1"	2,217.436
Witness bench mark, 49 feet south 25° east of tablet, in north root of 20-inch Columbia poplar tree; copper nail and washer	2,215.65
Trainer P. O., 1.48 miles southwest of, 30 feet west of road, 50 feet south of forks of lane, 100 feet north of ford, in east root of tall stump; copper nail and washer, tree marked "U. S. B. M. 2,188.4"	2,188.76
Trainer P. O., 2.11 miles southwest of, in southeast corner of road forks, 20 feet north of log railroad, in south root of 15-inch pine tree; copper nail and washer, tree marked "U. S. B. M. 2,178.4"	2,178.72
Trainer P. O., 2.93 miles southwest of, 1 mile northeast of **Columbia Sulphur Springs**, in southeast corner of cat-	

	Feet.
tle-guard, in end of stringer between rails of lumber railroad; copper nail and washer, guard-rail marked "U. S. B. M. 2,146.3".....	2,146.64
Columbia Sulphur Springs, north of Anthony Creek and 40 feet east of center of road crossing creek, 1 foot west of fence line, in top of boulder in place; bronze tablet stamped "W. Va. 1921 H 12 2123".....	2,122.535
Witness bench mark, 36.4 feet south 80° west of tablet, in root of 12-inch pine tree, copper nail and washer.....	2,122.82

From Marlinton southeast along highways into Warm Springs Quadrangle.

Marlinton, 950 feet west of railroad station, 50 feet south of asphalt road, 60 feet east of concrete highway bridge over Greenbrier River, in top of concrete post; bronze tablet stamped "W. Va. 1921 H 160 2123".....	2,122.574
Marlinton, 0.98 mile southeast of, on west edge of sharp turn in road, 5 feet east of corner fence-post, on top of large flat boulder; chiseled square, boulder marked "U. S. B. M. 2,213.4".....	2,213.69
Marlinton, 1.96 miles southeast of, on north edge of road, in east end of concrete culvert; chiseled square, culvert marked "U. S. B. M. 2,163.6".....	2,163.95
Marlinton, 2.74 miles southeast of, on north edge of road, in center of top of concrete culvert; chiseled square, culvert marked "U. S. B. M. 2,169.1".....	2,169.43
Marlinton, 3.60 miles southeast of, 2.92 miles west of **Huntersville,** on north edge of road, in top of concrete culvert; bronze tablet stamped "W. Va. 1921 H 175 2191", culvert marked "U. S. B. M. 2,190.4".....	2,190.700
Witness bench mark, 233.8 feet north 70° east of tablet, in center of concrete culvert; chiseled square.....	2,190.60
Huntersville, 1.89 miles northwest of, on north edge of road, center of top of concrete culvert; chiseled square, culvert marked "U. S. B. M. 2,199.6".....	2,199.93
Huntersville, 1.08 miles northwest of, 40 feet north of road center, 50 feet northeast of ford, in south root of 12-inch oak tree, in fence line; copper nail and washer, tree marked "U. S. B. M. 2,206".....	2,206.30
Huntersville, about 600 feet east of post-office, 40 feet south by 40 feet east of crossroads, set in top of concrete post; bronze tablet stamped "W. Va. 1921 H. 176 2266", post marked "U. S. B. M. 2,266".....	2,266.369
Witness bench mark, 100.8 feet south 40° east of tablet, in west root of large stump; copper nail and washer.....	2,268.81

	Feet.
Huntersville, 0.81 mile southeast of, on north edge of road, 150 feet north of north end of highway bridge over Knapp Creek, on top of large boulder; chiseled square, telephone-pole marked "U. S. B. M. 2,257.8"	2,258.17

From Huntersville southwest along highways to near southwest corner of quadrangle.

Huntersville, in southeast corner of crossroads, in top of concrete post; bronze tablet stamped "W. Va. 1921 H 176 2266"	2,266.369
Huntersville, 0.75 mile southwest of, on east edge of road, at gate to pasture, on top of steel culvert; chiseled square, post marked "U. S. B. M. 2,270.3"	2,270.58
Huntersville, 1.44 miles southwest of, on east edge of road, 70 feet south of ford and 60 feet north of gate, in west root of 12-inch pine tree; copper nail and washer, tree marked "U. S. B. M. 2,307"	2,307.34
Huntersville, 2.11 miles southwest of, on west edge of road, north side of drain, 130 feet north of house, in north root of 18-inch pine tree; copper nail and washer, tree marked "U. S. B. M. 2,383.7"	2,383.95
Huntersville, 3.38 miles southwest of, on east edge of road, opposite **Cummins Creek School,** set in top of concrete post; bronze tablet stamped "W. Va. 1921 H 194 2519", post marked "U. S. B. M. 2,518.6"	2,518.847
Witness bench mark, 38.2 feet south 30° west of tablet, in crotch of oak tree; copper nail and washer	2,523.05
Huntersville, 4.44 miles southwest of, at forks of road, 40 feet north of, in south root of 20-inch oak tree; copper nail and washer, tree marked "U. S. B. M. 2,459.5"	2,458.85
Huntersville, 5.12 miles southwest of, 30 feet west of road center, 30 feet north of run, just south of house, in east root of 10-inch pine tree; copper nail and washer, tree marked "U. S. B. M. 2,468.5"	2,468.90
Huntersville, 6.19 miles southwest of, 4.01 miles northeast of **Burr School,** on west edge of road, just south of road forks, in northeast corner of yard to home of W. M. Underwood, set in top of concrete post; bronze tablet stamped "W. Va. 1921 H 195 2405", post marked "U. S. B. M. 2,404.6"	2,405.022
Witness bench mark, 69.3 feet south 40° west of tablet, in south root of 15-inch apple tree; copper nail and washer	2,404.80
Burr School, 3.29 miles northeast of, 80 feet west of road, 250 feet southwest of **Beaver Creek School,** on south edge of lane west, in east root of 15-inch oak tree; copper nail and washer, tree marked "U. S. B. M. 2,427.1"	2,427.62

	Feet.
Burr School, 2.45 miles northeast of, on west edge of sharp turn in road, in north root of 20-inch pine tree; copper nail and washer, tree marked "U. S. B. M. 2,480.7".....	2,481.15
Burr School, 2.03 miles northeast of, on west edge of forks of road, in east root of 40-inch oak tree; copper nail and washer, tree marked "U. S. B. M. 2,506".....	2,506.40
Burr School, 1.18 miles northeast of, on east edge of road, in east root of tall stump; copper nail and washer, stump marked "U. S. B. M. 2,595.7".....	2,595.94
Burr School, 0.58 mile northeast of, 30 feet north of road center, in gap, set in top of concrete post; bronze tablet stamped "W. Va. 1921 H 196 2744", stump marked "U. S. B. M. 2,744.2".....	2,744.509
Witness bench mark, 24.7 feet north 10° west of tablet, in east root of stump; copper nail and washer.....	2,742.62
Burr School, 150 feet south of, on south edge of forks of road, in west root of 30-inch oak tree; copper nail and washer, tree marked "U. S. B. M. 2,602.5".....	2,602.84
Burr School, 0.78 mile southwest of, 50 feet south of road, on west bank of run, in top of large stump; copper nail and washer, stump marked "U. S. B. M. 2,543.8".....	2,544.15
Burr School, 1.44 miles southwest of, on east edge of road, 150 feet south of ford, 200 feet north of another ford, in top of large stump; copper nail and washer, stump marked "U. S. B. M. 2,474.2".....	2,474.52
Burr School, 2.32 miles southwest of, 30 feet east of road center, 50 feet north of run, set in top of concrete post; bronze tablet stamped "W. Va. 1921 H 197 2471", tree marked "U. S. B. M. 2,470.9".....	2,471.250
Witness bench mark, 62.8 feet north 5° west of tablet, in west root of large stump; copper nail and washer.....	2,469.69
Burr School, 3.44 miles southwest of, on south edge of road, in gap, in north root of 15-inch oak tree; copper nail and washer, tree marked "U. S. B. M. 2,645.1".....	2,645.30
Burr School, 4.46 miles southwest of, 30 feet south of road center, 20 feet west of run, in west root of tall stump; copper nail and washer, stump marked "U. S. B. M. 2,445.9".....	2,446.25
From Seebert northwest along highways toward Lobelia.	
Seebert, 0.66 mile northwest of, on west edge of sharp turn in road, on top of stone coping of culvert; chiseled square, shed marked "U. S. B. M. 2,169.5".....	2,169.53
Seebert, 1.33 miles northwest of, 60 feet west of road, on south edge of road to southwest, in east root of 12-inch	

	Feet.
oak tree; copper nail and washer, tree marked "U. S. B. M. 2,362.7"	2,362.92
Seebert, 2.01 miles northwest of, 1.26 miles east of **Hillsboro,** 60 feet north of **Pleasant Grove School,** at ⊤-road south, 40 feet east by 150 feet south of, on top of sandstone boulder; chiseled square, telephone-pole marked "U. S. B. M. 2,287.7"	2,287.95
Hillsboro, in northwest quadrant of crossroads, in concrete walk at front step of church; tablet stamped "2302"	2,302.408
Witness bench mark, 45.1 feet south 80° west, in south root of 15-inch maple tree	2,299.78
Hillsboro, 0.93 mile northwest of, on east edge of road, 350 feet north of dwelling, at angle in road, on north edge of farm road, east through gate, in south root of 24-inch oak tree; copper nail and washer, tree marked "U. S. B. M. 2,330.4"	2,330.46
Hillsboro, 2.08 miles west of, 40 feet west of road center, on north edge of private lane west through gate, on top of boulder; chiseled square, rock marked "U. S. B. M. 2,537.4"	2,537.34

From Marlinton north along highways into Mingo Quadrangle. (Part of an unadjusted line closing 1.2 feet high).

Marlinton, 950 feet west of railroad, 50 feet south of concrete road, 60 feet east of east end of concrete highway bridge over Greenbrier River, in top of concrete post; bronze tablet stamped "W. Va. 1921 H 160"	2,122.574
Marlinton, 0.89 mile northwest of, on east edge of road, 50 feet south of second-class ⊤-road east, in center of top of concrete culvert; chiseled square, marked "U. S. B. M. 2,131"	2,131.29
Marlinton, 1.89 miles northwest of, 0.4 mile north of **Campbelltown,** on east edge of road, just south of angle in road, on top face of ledge of rock; chiseled square; rock marked "U. S. B. M. 2,358.8"	2,359.01

MINGO QUADRANGLE: POCAHONTAS, RANDOLPH, AND WEBSTER COUNTIES.

(Latitude 38° 15′-38° 30′; Longitude 80° 00′-80° 15′).

Primary leveling by E. E. Harris in 1921 and P. E. Davenport in 1922:

From near Marlinton, Marlinton Quadrangle, north along highways to near Slaty Fork Post-Office. Part of an unadjusted line closing 0.948 feet high.

(This line was releveled in 1923, partly by H. R. Kilmer and partly by R. C. Seitz, without finding error. Additional lev-

	Feet.
eling should be done to reduce errors in the two circuits of Mingo Quadrangle of nearly 1 foot each).	
Marlinton, 2.87 miles north of, on west edge of road, on north edge of a dim road to southwest, 10 feet west of corner fence-post, in south root of large stump; copper nail and washer, fence-post marked "U. S. B. M. 2,500.8".....	2,501.06
Marlinton, 3.46 miles north of, 0.62 mile south of **Edray,** 4.33 miles east of **Woodrow,** at forks of ⊤-road west, 40 feet west by 60 feet south of, 15 feet south of small store, in yard of L. J. Moore, set in top of concrete post; bronze tablet stamped "W. Va. 1921 H 177", telephone-pole marked "U. S. B. M. 2,501.5".....	2,501.795
Reference bench mark, 43.6 feet south 40° west of tablet, in east root of 8-inch locust tree; copper nail and washer..	2,502.73
Edray, 400 feet south of post-office, in forks of Y-road, in center of top of concrete culvert; chiseled square, culvert marked "U. S. B. M. 2,409.2".....	2,409.49
Edray, 1.01 miles north of, on north edge of road, in south root of 30-inch chestnut tree; copper nail and washer, tree marked "U. S. B. M. 2,706.5".....	2,706.76
Edray, 1.82 miles north of, 30 feet east of road center, 10 feet east of wire fence line, 50 feet south of rail fence line, on side of cleared hill, in top of rock set in place; bronze tablet stamped "W. Va. 1921 H 178", telephone-pole marked "U. S. B. M. 3,026.6" (not found, 1923).....	3,026.742
Reference mark, 35.4 feet west of tablet, on top of ledge of rock; chiseled square (not found, 1923).....	3,028.54
Edray, 2.99 miles north of, in gap of **Red Lick Mountain,** 40 feet west of center and 50 feet south of cross lane, in east root of 24-inch oak tree; copper nail and washer, tree marked "U. S. B. M. 3,539.4".....	3,539.42
Edray, 4.02 miles north of, 0.54 mile south of **Crooked Fork School,** 40 feet west of road center, at southeast corner of private garage, in north root of 15-inch oak tree; copper nail and washer, tree marked "U. S. B. M. 3,166.3"..	3,166.46
Edray, 5.04 miles south of, 0.48 mile north of **Crooked Fork School,** 40 feet west of sharp turn in road, in top of large sandstone boulder; bronze tablet stamped "W. Va. 1921 H 179".....	3,064.333
Reference mark, 95 feet north 25° east of tablet, on top of pointed boulder; chiseled square.....	3,061.26
Edray, 6.01 miles north of, [illegible]	

	Feet.
Valley School, on west edge of road, in line with ⊤-road east, on top of boulder; chiseled square, fence-post marked "U. S. B. M. 2,957.7"	2,958.12
Edray, 7.64 miles north of, 40 feet north of road center, 55 feet east of **Marys Chapel**, 2 feet west of fence line, in top of large sandstone boulder; bronze tablet stamped "W. Va. 1921 H 180", fence marked "U. S. B. M. 2,949.9"	2,950.309
Reference mark, 41.6 feet north 40° west of tablet, on top of sandstone boulder; chiseled square	2,950.99
Edray, 8.53 miles north of, 0.88 mile northwest of **Marys Chapel**, 0.46 mile south of **Hannah School**, on east edge of road, at foot of hill and on south side of drain, in west root of 24-inch oak tree; copper nail and washer, tree marked "U. S. B. M. 2,909.8"	2,910.18
Edray, 9.60 miles north of, 0.61 mile northwest of **Hannah School**, on west edge of road, 130 feet north of run crossing road, on east side of gate, on top of boulder; chiseled square, fence marked "U. S. B. M. 2,858.3"	2,858.79
Edray, 10.73 miles north of, 80 feet north of road, 40 feet south of crest of hill, overlooking Old Field Fork, 4 feet east of lone tree, in top of large sandstone boulder; bronze tablet stamped "W. Va. 1921 H 181", telephone-pole marked "U. S. B. M. 2,818.2"	2,818.489
Reference mark, 52.4 feet north 40° east of tablet, on top of sandstone boulder; chiseled square	2,820.09
Edray, 11.32 miles north of, 0.80 mile south of Luther D. Sharp's store, on west edge of road, on top of boulder; chiseled square, boulder marked "U. S. B. M. 2,787.1"	2,787.46
Edray, 12.10 miles north of, 240 feet south of Luther D. Sharp's store, in center of east concrete parapet wall to bridge over Slaty Fork; chiseled square, wall marked "U. S. B. M. 2,809.2"	2,809.53
Slaty Fork P. O., 1.29 miles east of, 4.01 miles west of **Linwood**, 0.50 mile north of Luther D. Sharp's store, on south edge of road, 60 feet west of roads forks, in top face of long ledge of rock; bronze tablet stamped "W. Va 1921 H 182", rock ledge marked "U. S. B. M. 2,799.5". (Unadjusted)	2,799.852
(Adjusted elevation)	2,798.908

From near Slaty Fork P. O., north along highways into Pickens Quadrangle.

Primary leveling by E. E. Harris in 1921 and P. E. Davenport in 1922:

(An excessive adjustment has been made in this line).

Slaty Fork P. O., 1.29 miles east of, 4.01 miles west of **Linwood**, 0.50 mile north of Luther D. Sharp's store, on

	Feet.
south edge of road, 60 feet west of road forks, in top face of long ledge of rock; bronze tablet stamped "W. Va. 1921 H 182", rock ledge marked "U. S. B. M. 2,799.5"	2,798.908
Reference mark, 45.4 feet north 70° east of tablet, on rock ledge; chiseled square	2,795.96
Slaty Fork P. O., 200 feet south of, on east edge of road, in west root of 30-inch oak tree; copper nail and washer, tree marked "U. S. B. M. 2,671.3"	2,670.68
Slaty Fork P. O., 1.28 miles north of, 1,970 feet north of mile-post C 23, 20 feet east of track, at base of rock cliff, at south end of big cut, on top of face of ledge of rock; chiseled square, rock marked "U. S. 2,623.2 B. M."	2,622.36
Slaty Fork P. O., 2.35 miles north of, 2,400 feet north of mile-post C 24, 35 feet west of track, 100 feet north of shanty, in top of boulder below track; bronze tablet stamped "W. Va. 1921 H 183", boulder marked "U. S. B. M. 2,577.3"	2,576.444
Reference mark, 49.5 feet north 20° west of tablet, on top of boulder; chiseled square	2,580.30
Slaty Fork P. O., 3.33 miles north of, 2,240 feet north of mile-post C 25, 10 feet west of track, on top of pointed boulder; chiseled square, boulder marked "U. S. B. M. 2,547.5"	2,546.51
Slaty Fork, P. O., 4.37 miles north of, 1,260 feet south of Blackhole Run, 2,900 feet north of railroad trestle over Elk River, 20 feet east of track, on top of boulder; chiseled square, boulder marked "U. S. B. M. 2,523.4"	2,522.35
Slaty Fork P. O., 5.33 miles north of, 48 feet east of track, 80 feet northeast of gate to farmhouse of Hanson Hamrick, in west end of large boulder, in open field; bronze tablet stamped "W. Va. 1921 H 184", telegraph-pole marked "U. S. B. M. 2,488.3"	2,487.150
Reference mark, 81.0 feet north 20° west of tablet, on top of boulder; chiseled square	2,485.44
Slaty Fork P. O., 6.27 miles north of, 2,060 feet north of mile-post C 28, 900 feet north of shanty and warehouse, 10 feet east of track, on top of large boulder; chiseled square, boulder marked "U. S. B. M. 2,453.4"	2,452.27
Slaty Fork P. O., 7.37 miles north of, 40 feet east of track, 430 feet north of railroad switch, in top of large sandstone boulder; bronze tablet stamped "W. Va. 1921 H 185", boulder marked "U. S. B. M. 2,391.6"	2,390.422
Reference mark, 116.8 feet north 40° west of tablet, on top of boulder; chiseled square	2,389.68

Feet.

From Edray west along highways to Williams River. (Double spur line based upon unadjusted line north from Marlinton).

Woodrow, 3.50 miles east of, on south edge of road, 60 feet east of road forks, at **Onoto**, in center of parapet wall of new concrete bridge over Dry Creek; chiseled square, wall of bridge marked "U. S. B. M. 2,351"..... 2,351.38

Woodrow, 2.80 miles east of, 40 feet west of road center, on north edge of second-class road west, 100 feet south of **Pine Grove School**, in south root of 20-inch oak tree; copper nail and washer, tree marked "U. S. B. M. 2,500".. 2,500.30

Woodrow, 1.88 miles east of, on south edge of road, just east of angle in road, at foot of hill, on top of large boulder; chiseled square, boulder marked "U. S. B. M. 2,520.7"... 2,520.98

Woodrow, 1.88 miles east of, 40 feet south of road center, 150 feet east of gate, in top of boulder; bronze tablet stamped "W. Va. 1921 H 191", telephone-pole marked "U. S. B. M. 2,520.3"..... 2,520.522

Reference mark, 47 feet north 75° west of tablet, on top of boulder; chiseled square..... 2,521.88

Woodrow, 1.08 miles southeast of, 0.34 mile west of **West Union Church**, north edge of road, on top of rock, at base of cliffs; chiseled square, rock marked "U. S. B. M. 2,800"..... 2,800.13

Woodrow, 0.48 mile southeast of, in southwest corner of forks of lane, on top of boulder; chiseled square, telephone-pole marked "U. S. B. M. 2,992.1"..... 2,992.06

Woodrow, center of road in front of post-office, "3,202" marked on rock..... 3,202.

Reference mark, 186 feet south and 20 feet west of tablet, on east edge of road, on top of large flat boulder; chiseled square..... 3,204.87

Woodrow, 430 feet north of post-office, 300 feet southeast of forks of road, 80 feet east of road center, in top of large boulder; bronze tablet stamped "W. Va. 1921 H 192", telephone-pole marked "U. S. B. M. 3,209.7"..... 3,209.536

Woodrow, 0.67 mile northwest of, 30 feet north of road center, 50 feet east of church, in south root of 15-inch oak tree; copper nail and washer, tree marked "U. S. B. M. 3,215.9"..... 3,215.76

Woodrow, 1.35 miles northwest of, on west edge of road, 70 feet south of gate across road, in east root of 8-inch poplar tree; copper nail and washer, tree marked "U. S. B. M. 3,215.5"..... 3,215.43

Woodrow, 2.32 miles northwest of, on east edge of road, 300 feet south of run crossing road, on top of large boulder;

	Feet.
chiseled square, boulder marked "U. S. B. M. 3,171".....	3,170.99
Woodrow, 2.89 miles northwest of, 20 feet east of road center, 30 feet north of run crossing road, in top of large boulder; bronze tablet stamped "W. Va. 1921 H 193", tree marked "U. S. B. M. 3,118.5".....	3,118.536
Reference mark, 45.7 feet north of tablet, in west root of 6-inch oak tree; copper nail and washer.....	3,120.97
Woodrow, 3.71 miles northwest of, 60 feet south of road center, at point where road drops off to Williams River, top of cleared hill, in north root of 6-inch cherry tree; copper nail and washer, tree marked "U. S. B. M. 3,178.7".....	3,178.75

From near Slaty Fork P. O. along highways east and north into Pickens Quadrangle.

Edray, 12.60 miles north of, 1.29 miles east of **Slaty Fork P. O.,** 4.01 miles west of **Linwood,** on south edge of road, 60 feet west of road forks, in top of long ledge of rock; bronze tablet stamped "W. Va. 1921 H 182", rock ledge marked "U. S. B. M. 2,799.5".....	2,798.908
Reference mark, 45.5 feet north 70° east of tablet, on rock ledge; chiseled square.....	2,795.96
Linwood, 3.07 miles west of, on south edge of road, 30 feet east of run and about 80 feet northwest of house on hillside, on top of ledge of rock; chiseled square, post marked "U. S. T. B. M. 2,868.8".....	2,868.18
Linwood, 2.31 miles west of, on north edge of road, 15 feet east of gate and 150 feet west of lane to house, in south root of 25-inch oak tree; copper nail and washer, tree marked "U. S. B. M. 2,819.5".....	2,818.86
Linwood, 1.65 miles west of, on south side of road, at base of east end of parapet wall of new concrete bridge over Big Spring Fork; chiseled square, wall marked "U. S. B. M. 2,846.9".....	2,846.28
Linwood, 0.85 mile west of, on north edge of road, on top of rock ledge; chiseled square, telephone-pole marked "U. S. B. M. 2,896.7".....	2,896.07
Linwood, 500 feet west of post-office, 250 feet west of ⊤-road south, on north edge of angle in road, in top face of ledge of rock; bronze tablet stamped "W. Va. 1921 H 198", shed marked "U. S. B. M. 2,943.1".....	2,942.397
Reference mark, 68.8 feet south 75° east of tablet, on top of boulder; chiseled square.....	2,940.43
Linwood, 1.17 miles north of, on west edge of sharp turn in road, on top of large flat boulder, on north edge of run; chiseled square, boulder marked "U. S. B. M. 3,242".....	

	Feet.
chiseled square, boulder marked "U. S. B. M. 3,171".....	3,170.99
Woodrow, 2.89 miles northwest of, 20 feet east of road center, 30 feet north of run crossing road, in top of large boulder; bronze tablet stamped "W. Va. 1921 H 193", tree marked "U. S. B. M. 3,118.5".....	3,118.536
Reference mark, 45.7 feet north of tablet, in west root of 6-inch oak tree; copper nail and washer.....	3,120.97
Woodrow, 3.71 miles northwest of, 60 feet south of road center, at point where road drops off to Williams River, top of cleared hill, in north root of 6-inch cherry tree; copper nail and washer, tree marked "U. S. B. M. 3,178.7".....	3,178.75

From near Slaty Fork P. O. along highways east and north into Pickens Quadrangle.

Edray, 12.60 miles north of, 1.29 miles east of **Slaty Fork P. O.**, 4.01 miles west of **Linwood**, on south edge of road, 60 feet west of road forks, in top of long ledge of rock; bronze tablet stamped "W. Va. 1921 H 182", rock ledge marked "U. S. B. M. 2,799.5".....	2,798.908
Reference mark, 45.5 feet north 70° east of tablet, on rock ledge; chiseled square.....	2,795.96
Linwood, 3.07 miles west of, on south edge of road, 30 feet east of run and about 80 feet northwest of house on hillside, on top of ledge of rock; chiseled square, post marked "U. S. T. B. M. 2,868.8".....	2,868.18
Linwood, 2.31 miles west of, on north edge of road, 15 feet east of gate and 150 feet west of lane to house, in south root of 25-inch oak tree; copper nail and washer, tree marked "U. S. B. M. 2,819.5".....	2,818.86
Linwood, 1.65 miles west of, on south side of road, at base of east end of parapet wall of new concrete bridge over Big Spring Fork; chiseled square, wall marked "U. S. B. M. 2,846.9".....	2,846.28
Linwood, 0.85 mile west of, on north edge of road, on top of rock ledge; chiseled square, telephone-pole marked "U. S. B. M. 2,896.7".....	2,896.07
Linwood, 500 feet west of post-office, 250 feet west of ⊤⊤-road south, on north edge of angle in road, in top face of ledge of rock; bronze tablet stamped "W. Va. 1921 H 198", shed marked "U. S. B. M. 2,943.1".....	2,942.397
Reference mark, 68.8 feet south 75° east of tablet, on top of boulder; chiseled square.....	2,940.43
Linwood, 1.17 miles north of, on west edge of sharp turn in road, on top of large flat boulder, on north edge of run; chiseled square, boulder marked "U. S. B. M. 3,242".....	3,241.24

	Feet.
Linwood, 1.87 miles north of, in gap of **Middle Mountain**, in southwest corner of crossing of Western Maryland Railroad and county road, in east root of 18-inch oak tree; copper nail and washer, telephone-pole marked "U. S. B. M. 3,501.8"	3,501.03
Linwood, 2.79 miles north of, 10 feet south of track, 20 feet east of water-tank, on top of large boulder; chiseled square, boulder marked "U. S. B. M. 3,581.4"	3,580.61
Linwood, 3.59 miles north of, 3.55 mlies south of **Mingo**, at **Mace**, 200 feet north of lane to, on west edge of road, in top face of rock ledge; bronze tablet stamped "W. Va. 1921 H 199", telephone-pole marked "U. S. B. M. 3,464.4"	3,463.582
Reference mark, 58 feet north 10° west of tablet, on top of rock ledge; chiseled square	3,460.25
Mingo, 2.51 miles southeast of, on east edge of road, at southwest corner of old **Fairview School** (now abandoned), in west root of forked oak tree; copper nail and washer, telephone-pole marked "U. S. B. M. 3,102.4"	3,101.85
Mingo, 1.74 miles south of, on south edge of sharp turn in road, 300 feet south of new **Fairview School**, on west edge of private lane and 60 feet east of second-class road, on top of rock ledge; chiseled square, rock marked "U. S. B. M. 2,993"	2,992.48
Mingo, 0.87 mile south of, on east edge of road, top of rise, in top face of concrete foundation of iron gate to fence around memorial monument; chiseled square, telephone-pole marked "U. S. B. M. 3,037.2"	3,036.72
Mingo, 0.51 mile south of post-office, 50 west of road, 50 feet north of old church (now abandoned) at **Upper Mingo**, in top of large boulder; bronze tablet stamped "W. Va. 1921 H 200", rock marked "U. S. B. M. 2,691.7"	2,691.396
Reference mark, 38.2 feet north 85° east of tablet, in west root of 18-inch oak tree; copper nail and washer	2,689.34
Mingo, at south end of steps at entrance to post-office, on top of large flat boulder; chiseled square, telephone-pole marked "U. S. B. M. 2,638.8"	2,638.54
Mingo, 1.06 miles northwest of, 3.5 miles southeast of **Monterville**, 40 feet west of road, 150 feet north of barn, (in Pickens Quadrangle), in south root of 10-inch apple tree; copper nail and washer, tree marked "U. S. B. M. 2,961.1"	2,960.80

From Linwood southeast along highways to near Clover Lick, Cass Quadrangle.

Primary leveling by P. E. Davenport in 1922:

Linwood, 500 feet west of post-office, 250 feet west of ⊤-road south, on north edge of angle in road, in top face of	

	Feet.
ledge of rock; bronze tablet stamped "W. Va. 1921 H 196", shed marked "U. S. B. M. 2,943.1"	2,942.397
Linwood, 1.1 miles southeast of, in limestone rock, on south margin of road; rock painted "U. S. 3,036.3", chiseled square	3,035.33
Wooddell mail-box, center of road	3,110.0
Linwood, at creek, 1.8 miles east of	3,091.9
Linwood, 2.09 miles southeast of, in large limestone rock, on side of road; chiseled square, rock painted "U. S. B. M. 3,111.2"	3,110.16
Yewglade School, in front of; ground	3,125.5
Linwood, 2.8 miles southeast of, in small rock, on east side of road, north of rock; chiseled square, painted "U. S. B. M. 3,322.8"	3,321.87
Linwood, 3.27 miles southeast, of, 7 feet north of north gate-post, 25 feet west of center of road, in pasture of O. A. Bell, on point of **Cloverlick Mountain**, on concrete post; bronze tablet stamped "W. Va. D 1", mail-box painted "U. S. B. M. 3,502.5"	3,501.458
Reference mark, in stump of locust tree, on west side of road, 38 feet southeast of post; copper nail and washer	3,499.14
Stone, west side of road, painted "3,326"	3,325.4
Linwood, 4.15 miles southeast of, 1.4 miles east of **Gibson Knob**, in sandstone rock, on east edge of road; chiseled square, painted "U. S. B. M. 3,078.5"	3,077.57
Linwood, 6.04 miles southeast of, 4.25 miles northwest of **Clover Lick**, in old gate-post, on west side of road; copper nail and washer, gate painted "U. S. B. M. 2,611.6"	2,610.78
Sharp curve in road, pole, painted "2,526"	2,524.8
Linwood, 6.13 miles southeast of, 4.15 miles northwest of **Clover Lick**, on small sandstone rock, on west side of road, at cattle-scale side of shed, painted "U. S. B. M. 2,513.1", chiseled square	2,512.25
Clover Lick, 3.36 miles northwest of, 45 feet south 30° east of center of road, 47 feet west of 24-inch oak tree on north bank of Cloverlick Creek, in flint rock; bronze tablet stamped "W. Va. D", elevation painted on large rock on north side of road "U. S. B. M. 2,408.9"	2,408.078
Reference mark, in north root of 24-inch oak tree, 47 feet east of tablet, 25 feet north of Cloverlick Creek, 200 feet west of gate in fence corner; copper nail and washer	2,408.70

	Feet.
At old abandoned schoolhouse, elevation painted "2,389"....	2,388.8

Primary leveling by E. E. Harris in 1921:

From Cass Quadrangle southwest along Chesapeake and Ohio Railroad across southeast corner of quadrangle into Marlinton Quadrangle.

Big Run, 0.76 mile southwest of, 20 feet south of mile-post W 66, east side of track, in top of rack for extra rail; copper nail and washer, telegraph-pole marked "U. S. B. M. 2,237.4".....	2,237.64
Big Run, 1.75 miles southwest of, 0.44 mile northeast of **Harter,** 20 feet east of mile-post W 65, 10 feet south of track, in top of rack for extra rail; copper nail with washer (rock marked), base of mile-post marked "U. S. B. M. 2,221.2".....	2,221.50
Harter, in front of station-sign; top of near rail, end of tie marked "U. S. 2,210.3".....	2,210.6
Harter, 1,740 feet southwest of station, 1,200 feet north of mile-post W 64, 15 feet east of track, on top face of ledge of rock; bronze tablet stamped "W. Va. 1921 H 157", rock marked "U. S. B. M. 2,205.6".....	2,205.845
Reference mark, 56.3 feet south 15° east of tablet, on top of boulder; chiseled square.....	2,205.85
Harter, 1.25 miles southwest of, 0.90 mile east of **Clawson,** 1,620 feet north of mile-post W 63, 10 feet east of track, at base of leaning boulder; chiseled square, boulder marked "U. S. B. M. 2,196.2".....	2,196.49
Clawson, in front of station-sign; top of rail, end of tie marked "U. S. B. M. 2,185.3".....	2,185.6
Clawson, 70 feet south of station-sign, 60 feet west of track, in east root of pear tree; copper nail with washer, tree marked "U. S. B. M. 2,182.3".....	2,182.58
Thorny Creek, in front of station-sign; top of near rail; end of tie marked "U. S. 2,174.4".....	2,174.6
Thorny Creek, 500 feet south of station, 0.95 mile northeast of **August,** 1,000 feet north of mile-post W 61, 40 feet west of track, in top of boulder below track; bronze tablet stamped "W. Va. 1921 H 158", rock marked "U. S. B. M. 2,166.4".....	2,166.683
Reference mark, 81 feet south 40° west of tablet, in east root of 6-inch maple tree; copper nail and washer.....	2,167.58

SPRUCE KNOB QUADRANGLE: PENDLETON, RANDOLPH, AND POCAHONTAS COUNTIES.

(Latitude 38° 30'-38° 45'; Longitude 79° 30'-79° 45').

Primary leveling by E. E. Harris in 1921:

From Circleville, Circleville Quadrangle, along highways southwest and south to Dry Run P. O., thence southeast into Circleville Quadrangle.

	Feet.
Circleville, 0.97 mile south of, 30 feet west of road, on south side of drain, on top of large boulder; chiseled square, fence marked "U. S. B. M. 2,095.3".....	2,095.31
Circleville, 1.71 miles south of, in northeast corner of sharp turn in road, 20 feet east of run, on top of boulder; chiseled square, fence marked "2,158.7".....	2,157.71
Circleville, 2.59 miles south of, on west edge of road, on south edge of lane through gate, on top of boulder; chiseled square, gate-post marked "U. S. B. M. 2,160.5"..	2,160.45
Circleville, 3.19 miles south of, at **Big Run,** in **Big Run Church yard,** 30 feet west of road, 86 feet east of northeast corner of church, in top of large boulder; bronze tablet stamped "W. Va. 1921 H 69 2206", fence marked U. S. B. M. 2,206.4".....	2,206.327
Witness bench mark, S. 75° W. of tablet, on top of outcrop of rock; chiseled square.....	2,206.66
Circleville, 3.83 miles south of, on east edge of road, 250 feet north of foot-bridge, in south end of triangle formed by forks of lane east to farmhouse, on top of boulder; chiseled square, fence marked "U. S. B. M. 2,216.5"....	2,216.48
Circleville, 4.56 miles south of, 1.10 miles northwest of **Dry Run Post-Office,** on north edge of ⊤-road east, 50 feet east of north-and-south road, in west root of 30-inch walnut tree; copper nail and washer, tree marked "U. S. B. M. 2,252.1".....	2,252.05
Dry Run Post-Office, about 500 feet west of, on north edge of road, east edge of run, west edge of lane north through gate, on top of large boulder; chiseled square, fence marked "U. S. B. M. 2,379.6".....	2,379.55
Dry Run P. O., 0.88 mile southeast of, 40 feet east of road, 50 feet north of second-class road east, in top of boulder; bronze tablet stamped "W. Va. 1921 H 70 2492", fence-post marked "U. S. B. M. 2,491.7".....	2,491.619
Witness bench mark, 16.7 feet south 10° east of tablet, on top of boulder; chiseled square.....	2,492.16
Dry Run P. O., 1.77 miles southeast of, on north edge of road, west of bridge over Dry Run, on top of boulder; chiseled square, fence marked "U. S. B. M. 2,625.3"....	2,625.25
Dry Run P. O., 2.49 miles southeast of, in forks of road at Weimer's blacksmith shop, on top of small outcrop of	

	Feet.
rock; chiseled square, telephone-pole marked "U. S. B. M. 2,800.8"	2,800.81
Dry Run P. O., 3.15 miles southeast of, 30 feet west of road center, in line with lane east through gate to farmhouse, in top of concrete post; bronze tablet stamped "W. Va. 1921 H 81 3142", fence-post marked "U. S. B. M. 3,141.7"	3,141.532
Witness bench mark, 37.8 feet west of tablet, in north root of 30-inch apple tree; copper nail and washer	3,140.95
Dry Run P. O., 3.69 miles southeast of, on east edge of road, in gap, in top of stump of telephone-pole; copper nail and washer, fence marked "U. S. B. M. 3,401.7"	3,401.54
Dry Run P. O., 4.51 miles southeast of, on east edge of road, in bed of run, on top of ledge of rock; chiseled square, ledge marked "U. S. B. M. 3,076.7"	3,076.50
Cave P. O., 2.26 miles southwest thence 2.78 miles northwest of, at forks of road southeast to Crabbottom, 50 feet east of road center, in top of large boulder; bronze tablet stamped "W. Va. 1921 H 80 2834", gate-post marked "U. S. B. M. 2,834.2"	2,834.108
Witness bench mark, 37.3 feet west of tablet, in east root of 15-inch walnut tree; copper nail and washer	2,834.61

From Horton Quadrangle along highways southwest to Osceola, thence northwest into Horton Quadrangle.

Horton, 7.19 miles south of, at north end of railroad trestle, in top face of sill between tracks; copper nail and washer, guard-rail marked "U. S. B. M. 3,225.3"	3,225.55
Horton, 8.22 miles south of, on east side of track, near south end of fenced-in field, on top of boulder; chiseled square, fence marked "U. S. B. M. 3,284.3"	3,284.52
Horton, 8.96 miles south of, 15 feet south of track, 350 feet east of switch, in sharp turn in railroad, on top of large flat boulder; chiseled square, telegraph-pole marked S. S. B. M. 3,330.7"	3,330.90
Witness bench mark, 33 feet north 10° west of tablet, on top of boulder; chiseled square	3,427.40
Horton, 9.70 miles south of, 1.62 miles northeast of **Osceola**, 15 feet east of track, in top of large sandstone boulder; bronze tablet stamped "W. Va. 1921 H 102 3430", boulder marked "U. S. B. M. 3,430"	3,430.263
Osceola, 0.68 mile northeast of, 30 feet west of road, north side of wire fence, just west of gate, on top of boulder; chiseled square, telephone-pole marked "U. S. B. M. 3,488.3"	3,488.48

	Feet.
Osceola, 200 feet west of post-office (post-office has since been moved 1.2 miles west of Osceola and 0.6 mile southwest of Osceola School), 100 feet west of T-road north, 40 feet north of center of road, in south root of 7-inch elm tree; copper nail and washer, tree marked "U. S. B. M. 3,513.1"	3,513.29
Osceola, 1.35 miles northwest of, 500 feet northwest of Osceola School, 50 feet east of center of road, on north side of low gap, in center of flat boulder; bronze tablet stamped "W. Va. 1921 H 103 3595", fence-post marked "U. S. B. M. 3,594.8"	3,595.091
Witness bench mark, 33.6 feet south 75° west of tablet, inside fence line, on top of boulder; chiseled square	3,594.19
Osceola, 2.10 miles northwest of, 60 feet north of road, 120 feet west of gate to farmhouse, on top of large boulder; chiseled square, boulder marked "U. S. B. M. 3,321.4"	3,321.64
Osceola, 3.20 miles northwest of, on north edge of road, on roadbed, 10 feet east of southeast corner of shanty, on top of boulder; chiseled square, corner of shanty marked "U. S. B. M. 3,171.4"	3,171.62
Osceola, 3.81 miles northwest of, on north edge of road, in east edge of lane north through gate, on top of small boulder; chiseled square, telephone-pole marked "U. S. B. M. 3,138.4"	3,138.66
Osceola, 4.84 miles northwest of, 80 feet west of Laurel Fork, 55 feet south of sharp turn in road at foot of mountain, 35 feet west of old log road, in top of boulder set in place; bronze tablet stamped "W. Va. 1921 H 104 3102" post marked "U. S. B. M. 3,101.4"	3,101.625
Witness bench mark, 10.7 feet north 20° east of tablet, in top of small boulder; chiseled square	3,101.29
Osceola, 5.60 miles northwest of, on east edge of road, in west root of 12-inch elm tree; copper nail and washer, tree marked "U. S. B. M. 3,385.4"	3,385.65
From near Bartow, Durbin Quadrangle, northeast along highways to point west of Osceola.	
Thornwood P. O. (Winterburn Station), 0.57 mile sonthwest of, west side of track, 25 feet south of second-class road crossing, top of rock ledge; chiseled square, rock marked "U. S. B. M. 2,842.9"	2,843.13
Thornwood P. O. (Winterburn Station), 900 feet west of station, 40 feet north of track, at angle in county road, east side of, in top of rock set in place; bronze tablet stamped "W. Va. 1921 H 123 2871", fence-post marked "U. S. B. M. 2,870.9"	2,871.179

	Feet.
Witness bench mark, 50.7 feet north of tablet, in top of rock, at south end of plank walk; chiseled square	2,873.80
Thornwood P. O. (Winterburn Station), 0.87 mile northeast of, on south edge of road, 20 feet east of gate to pasture, on top of boulder; chiseled square, gate-post marked "U. S. B. M. 2,908.7"	2,908.99
Thornwood P. O. (Winterburn Station), 1.70 miles north of, 30 feet west of road, in north root of 20-inch spruce tree; copper nail and washer, tree marked "U. S. B. M. 3,147.7"	3,147.88
Thornwood P. O. (Winterburn Station), 2.64 miles north of, on east edge of road, in west root of 10-inch oak tree; copper nail and washer, tree marked "U. S. B. M. 3,671"	3,671.04
Thornwood P. O. (Winterburn Station), 3.24 miles north of, in forks of Y-road, on top of **Burner Mountain**, set in top of concrete post; bronze tablet stamped "W. Va. 1921 H 124 4094", tree marked "U. S. B. M. 4,094.1"	4,094.012
Witness bench mark, 68 feet north 30° east of tablet, in south root of 18-inch elm tree; copper nail and washer	4,100.27
Thornwood P. O. (Winterburn Station), 4.07 miles north of, on north edge of road, on hill in road, in south root of 12-inch maple tree; copper nail and washer, tree marked "U. S. B. M." 4,076.5"	4,076.50
Thornwood P. O. (Winterburn Station), 4.78 miles north of, east edge of road, 200 feet south of corner fence-post, in west root of 12-inch tree; copper nail and washer, tree marked "U. S. B. M. 3,994.6"	3,994.67
Thornwood P. O. (Winterburn Station), 5.67 miles north of, 80 feet south of road center, in north root of forked chestnut tree; copper nail and washer, tree blazed and marked "U. S. B. M. 3,912.5"	3,912.62
Thornwood P. O. (Winterburn Station), 6.16 miles north of, 30 feet east of road center, on top of high cleared knob, in top of concrete post; bronze tablet stamped "W. Va. 1921 H 125 3914", tree marked "U. S. B. M. 3,914.3"	3,914.424
Witness bench mark, 49 feet north 40° west of tablet, in east root of 15-inch maple tree; copper nail and washer	3,914.24
Thornwood P. O. (Winterburn Station), 7.40 miles north of, 20 feet east of road center, 20 feet south of gate, in fence line, in west root of 20-inch oak tree; copper nail and washer, tree marked "U. S. B. M. 3,827.9"	3,828.11
Thornwood P. O. (Winterburn Station), 8.21 miles north of, 20 feet east of road center, at south edge of big clearing, on top of boulder; chiseled square, boulder marked "U. S. B. M. 3,729.7"	3,729.91

	Feet.
Thornwood P. O. (Winterburn Station), 8.76 miles north of, 0.84 mile west and 5.98 miles southwest of **Osceola**, 50 feet south of road center, 80 feet north of wire fence line, 40 feet east of rail fence line, 456 feet east of sheep shed, in top of concrete post; bronze tablet stamped "W. Va. 1921 H 126 3739", fence marked "U. S. B. M. 3,738.5"	3,738.763
Witness bench mark, 95.3 feet south 15° west of tablet, in east root of locust tree; copper nail and washer	3,738.78
Osceola, 0.84 mile west by 5.26 miles south of, in center of trail, in line with trail east through gate, 150 feet north of scales, on top of large boulder; chiseled square, fence marked "U. S. B. M. 3,811.3"	3,811.56
Osceola, 0.84 mile west by 4.28 miles south of, on east edge of road, in sharp turn in road, 0.23 mile northwest of **Stark School**, on top of large boulder, south of run crossing road; chiseled square, boulder marked "U. S. B. M. 3,677.9"	3,678.17
Osceola, 0.84 mile west by 3.48 miles south of, 50 feet southeast of road forks, 600 feet northeast of C. Lance's dwelling, 10 feet west of fence line, set in top of concrete post; bronze tablet stamped "W. Va. 1921 H 127 3637", gate-post marked "U. S. B. M. 3,636.5"	3,636.823
Witness bench mark, 83.5 feet west of tablet, on top of large boulder; chiseled square	3,633.03
Osceola, 0.84 mile west by 2.72 miles south of, 30 feet north of road, 20 feet south of wire fence line, 50 feet west of gate, on top of large boulder; chiseled square, boulder marked "U. S. B. M. 3,707.6"	3,707.85
Osceola, 0.84 mile west by 1.85 miles south of, on south edge of road, 40 feet east of gate, in angle of road, on top of boulder; chiseled square, boulder marked "U. S. B. M. 3,651.7"	3,651.97
Osceola, 0.84 mile west by 0.90 mile south of, on west edge of road, in north root of 30-inch maple tree; copper nail and washer, tree marked "U. S. B. M. 3,533.5"	3,533.85
Osceola, 1.35 miles northwest of, 500 feet northwest of **Osceola School**, 50 feet east of road center, north side of low gap, in top of flat boulder; bronze tablet stamped "W. Va. 1921 H 103 3595"	3,595.091

From Durbin Quadrangle southeast across southwest corner of quadrangle into Hightown Quadrangle.

Bartow, 2.08 miles southeast of, on north edge of road, on top of ledge of rock; chiseled square, telephone-pole marked "U. S. B. M. 3,523.7"	3,523.66

	Feet.
Bartow, 3.95 miles southeast of, 40 feet west of road center, in saddle of road, set in top of concrete post; bronze tablet stamped "W. Va. 1921 H 128 3625", telephone-pole marked "U. S. B. M. 3,624.7"	3,624.617
Witness bench mark, 40.2 feet south of tablet, in west root of 12-inch oak tree; copper nail and washer	3,624.59
Bartow, 4.21 miles southeast of, on west edge of road, at foot of hill, across road from home, in west root of 20-inch sugar tree; copper nail and washer, telephone-pole marked "U. S. B. M. 3,696.5"	3,696.41
Bartow, 5.4 miles southeast of, in sharp turn in road, 30 feet north of lane, in east root of 12-inch oak tree; copper nail and washer, mail-box post marked "U. S. B. M. 3,906.8"	3,906.67

Primary leveling by R. C. Seitz in 1922. (A checked line):

From Circleville Quadrangle, west up trail to Summit of Spruce Knob.

Circleville, 1.50 miles west of, at forks of road, on north side of Reeds Run; chiseled mark on rock at south edge of road	2,596.65
Circleville, 2.1 miles west of, about 0.25 mile below Howard Bennett's house, at sharp bend in road, north edge of road, 2 feet west of 6-inch hickory tree, on rock; chiseled square	3,014.34
Circleville, 2.5 miles west of, at edge of clearing on brow of spur, in root of 18-inch locust tree; copper nail and washer	3,527.85
Circleville, 3 miles west of, in root of oak tree, 12 feet north of trail; nail	3,796.19
Circleville, 3.01 miles west of, in root of ash tree, 10 feet west of trail; nail	3,904.67
Circleville, 3.25 miles west of, in root of beech tree; copper nail	4,294.61
Spruce Triangulation Station and Fire Lookout, on highest part of and near south end of **Spruce Mountain;** bronze tablet set in rock, 10 feet south of southeast corner of Lookout, stamped "4860"	4,860.115
Witness bench mark, on large rock to which guy wire from northeast corner of Lookout is attached, 35 feet north-northeast of bench mark; chiseled square	4,860.63

WARM SPRINGS QUADRANGLE: POCAHONTAS AND GREENBRIER COUNTIES.

(Longitude 38° 00′-38° 15′; Longitude 79° 45′-80° 00′).

Primary leveling by E. E. Harris in 1921:

From Cass Quadrangle southwest along highways through west part of quadrangle into the southeast part of Marlinton Quadrangle.

	Feet.
Frost, 3.01 miles southwest of, on east edge of road, inside fence line, on south bank of Mill Run, in south root of leaning black cherry tree; copper nail and washer, tree marked "U. S. B. M. 2,461"	2,461.31
Frost, 4.12 miles southwest of, 100 feet south of **Moore School,** east edge of road, in south root of tree; copper nail and washer, telephone-pole marked "U. S. B. M. 2,429.1"	2,429.53
Frost, 5.20 miles southwest of, 40 feet west of road, 20 feet south of lane through gate, in top of large rock set in place; bronze tablet stamped "2410 W. Va. 1921 H 167", gate-post marked "U. S. B. M. 2,409"	2,409.779
Reference mark, 46.9 feet south 65° west of tablet, in west root of stump; copper nail and washer	2,410.55
Frost, 6.22 miles southwest of, on east edge of sharp turn in road, inside fence line, in west root of an apple tree; copper nail and washer, fence marked "U. S. B. M. 2,376.3"	2,376.67
Frost, 7.01 mlies southwest of, on west edge of road, 150 feet south of **Mount Carmel Church,** on top of large flat boulder; chiseled square, tree marked "U. S. B. M. 2,367.2"	2,367.57
Frost, 8.18 miles southwest of, 50 feet east of road center, on side of cleared hill, set in top of large sandstone boulder; bronze tablet stamped "2410 W. Va. 1921 H 168", fence marked "U. S. B. M. 2,409.5"	2,409.825
Reference mark, 46.3 feet north 60° west of tablet, in north root of 12-inch apple tree; copper nail and washer	2,414.50
Frost, 9.15 miles southwest of, on east edge of road, on line with lane east through gate, on top of small rock in road; chiseled square, gate-post marked "U. S. B. M. 2,392.3"	2,392.67
Frost, 9.77 miles southwest of, on east edge of angle in road and on north edge of lane east through gate, on top of small boulder; chiseled square, gate-post marked "U. S. B. M. 2,359.8"	2,360.16
Frost, 10.68 miles southwest of, 0.31 mile west of **Minnehaha Springs,** 2.53 miles southeast of **Huntersville,** 30 feet southwest of south end of county bridge over Knapp Creek, set in top of large rock; bronze tablet stamped "2312 W. Va. 1921 H 169", end of bridge rail marked "U. S. B. M. 2,311.9"	2,312.209

	Feet.
Reference mark, 37 feet north 60° east of tablet, in east end of south concrete abutment to bridge over Knapp Creek; chiseled square	2,310.82
Minnehaha Springs, center of road, in front of post-office, telephone-pole marked "U. S. 2,330"	2,330.3
Minnehaha Springs, 0.70 mile south of, in forks of road, on top of large boulder; chiseled square, boulder marked "U. S. B. M. 2,326"	2,326.78
Minnehaha Springs, 1.69 miles south of, 2.60 miles northwest of **Rimel,** on east edge of road, at mouth of hollow, on south root of 12-inch oak tree; copper nail and washer, tree marked "U. S. B. M. 2,356.5"	2,356.83
Minnehaha Springs, 1.69 miles south of, 2.60 miles northwest of **Rimel,** 40 feet east of road center, on south side of hollow, set in top of concrete post; bronze tablet stamped "2359 W. Va. 1921 H 104", fence-post marked "U. S. B. M. 2,359"	2,359.310
Reference mark, 55.7 feet south 50° east of tablet, in root of oak tree; copper nail and washer	2,355.08
Rimel, 1.48 miles northwest of, on north edge of road, 80 feet west of right-angle turn in road, on top face of large sheet rock; chiseled square, rock marked "U. S. B. M. 2,392.6"	2,392.95
Rimel, 0.67 mile northwest of, on south edge of road in top of large stump; copper nail and washer, tree marked "U. S. B. M. 2,421.2"	2,421.54
Rimel, at forks of ⊤-road south, 100 feet south of, 30 feet east of, in yard of home owned by R. D. Rimel, Postmaster, set in top of concrete post; bronze tablet stamped "2438 W. Va. 1921 H 170", telephone-pole marked "U. S. B. M. 2,437.9"	2,438.285
Reference mark, 108.6 feet south 20° west of tablet, on top of boulder; chiseled square	2,439.37
Rimel, 0.86 mile south of, on east edge of right-angle turn in road, on west edge of dim road southeast, in north root of 15-inch oak tree; copper nail and washer, tree marked "U. S. B. M. 2,462"	2,462.38
Rimel, 1.68 miles southwest of, on west edge of road, 60 feet north of gate, in east root of forked oak tree; copper nail and washer, tree marked "U. S. B. M. 2,481.1"	2,481.40
Rimel, 2.50 miles southwest of, 40 feet west of road center, 150 feet southeast of house, just east of barn, in east root of large stump; copper nail and washer, gate-post marked "U. S. B. M. 2,500.2"	2,500.52

Feet.

Rimel, 2.97 miles southwest of, 35 feet east of road center, 200 feet south of log road crossing, 120 feet north of shack, set in top of concrete post; bronze tablet stamped "2521 W. Va. 1921 H 171", tree marked "U. S. B. M. 2,520.2"..... 2,520.547

Reference mark, 115.6 feet south 10° east of tablet, in north root of large stump; copper nail and washer..... 2,523.80

Rimel, 3.61 miles southwest of, 4.71 miles northeast of **Trainer Post-Office**, on south edge of road, in gap, in west root of 12-inch pine tree; copper nail and washer, tree marked "U. S. B. M. 2,648.6"..... 2,648.83

Trainer Post-Office, 3.83 miles northeast of, on north edge of road, west side of Sugar Hall Run, 330 feet west of dwelling, in west root of forked oak tree; copper nail and washer, tree marked "U. S. B. M. 2,430.3"..... 2,430.69

From Huntersville, Marlinton Quadrangle, southeast along highways to Minnehaha Springs.

Huntersville, 1.55 miles southeast of, at forks of road, 30 feet east by 60 feet north of, 4 feet west of fence corner, on top of large boulder; chiseled square, telephone-pole marked "U. S. B. M. 2,274.5"..... 2,274.86

Huntersville, 2.53 miles southeast of, 10.68 miles southwest of **Frost**, and 0.31 mile northwest of **Minnehaha Springs**, 30 feet southwest of south end of county bridge over Knapp Creek, set in top of large rock; bronze tablet stamped "2312 W. Va. 1921 H 169", end of bridge rail, marked "U. S. B. M. 2,311.9"..... 2,312.209

WEBSTER SPRINGS QUADRANGLE: WEBSTER, NICHOLAS, GREENBRIER, AND POCAHONTAS COUNTIES.

(Latitude 38° 15'-38° 30'; Longitude 80° 15'-80° 30').

(3 lines omitted; complete levels on this quadrangle will be found on pages 62-64 of Bulletin 632 of the U. S. Geological Survey, and on pages 630-633 of the Webster County Report of the West Virginia Geological Survey. Parts of two lines are given below).

From Upper Glade southeast 12 miles along highway up Williams River.

(4 levels omitted here).

Dyer Post-Office, 3.7 miles east of, south side of road, in root of tree; copper nail with washer stamped "U. S. G. S. W. Va. B. M.", marked "U. S. B. M. 2,311"..... 2,311.57

Dyer Post-Office, 4.8 miles east of, north side of road, in root of tree; copper nail with washer stamped "U. S. G. S. W. Va. B. M.", marked "U. S. B. M. 2304"..... 2,305.10